HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

303. BLAIR, P. **Are women's hospitals necessary?** *Health and Social Service Journal*, London, 1975, Dec. 20/27, vol. 85, no. 4470, pp. 2790-2791.

The three hospitals in the United Kingdom where women may be treated by women may be threatened with closure. The problems of the Elizabeth Garrett Anderson Hospital, London, the Bruntsfield Hospital, Edinburgh and the South London Hospital for Women and Children, raise the issue of the need for women to have easy access to women doctors. Some of the reasons for patients' demands for women's hospitals are outlined. Women who wish to attend these hospitals have to pay the costs of travel, and in consequence the poorest women still have little choice of hospital. Until there is a change in funding arrangements and an increase in facilities throughout the country where women may be treated by women it is only a limited number who can afford to exercise their right to choose. Very few community health councils have been in operation long enough to survey the need: it is hoped that in the not too distant future some may do so.

304. BENNETT, A. E. **Community hospitals.** *Health Trends*, London, 1975, Nov., vol. 7, no. 4, pp. 66-68.

Despite the prevailing trend towards large district hospitals in Great Britain, in some areas the provision of smaller community hospitals is proving an interesting experiment. These hospitals provide non-specialist treatment for local communities, with in-patient accommodation for selected patient groups and rehabilitation facilities for day patients. Community hospitals are particularly suitable for: medical patients under observation; early post-operative transfers from larger hospitals; selected post-assessment geriatric or psychiatric patients; terminal care patients; and selected physically and mentally handicapped patients. Conversely, facilities are not available for children, severely disturbed patients or those requiring specialist treatment. The paper describes the recently opened experimental community hospital in Wallingford, Oxfordshire. In administration, a new system of patient records has been designed to integrate the previous tripartite administration of health services, whilst the unification of nursing management for all services at community level has also been introduced. Operational policies involved the setting up of a multidisciplinary advisory committee whose members ensure that the interests of the hospital are represented in all aspects of the primary health care system. The community hospital has thus evolved from the small cottage hospital into a larger unit which has a defined and limited role, being aligned with the primary health care team as a subsystem of wider district hospital services.

305. RYAN, M. **Hospital pay beds: a study in ideology and constraint.** *Social and Economic Administration*, Exeter, 1975, vol. 9, no. 3, pp. 164-183.

An evaluation is presented of the present state of private beds in hospitals under the National Health Service. The history of the private beds from their inception in 1946

under the National Health Service Bill to the present discussions concerning their abolition, is traced and analysed together with the controversies surrounding the issue. Two generalizations are made: (i) without the consent of the medical profession a government may be unable to abolish one feature of the Health Service without endangering the structure of the whole; and (ii) both government and the medical profession are restrained by a symbiotic relationship in which one side has the resources and the other the specialist skills, together necessary for a modern hospital service.

HOSPITALS IN OTHER COUNTRIES

306. RICHARDS, R. W. **Health and social care in a small community.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 32, 34-36.

Homepayne (Ont.) Community Hospital has extended its services to meet all health needs within the area. The community needed social and health care, together with an expansion of the active treatment and geriatric facilities. The hospital believed that social and health care was of paramount importance, and that by building a small unit on to existing buildings, a need would be filled and costs kept down. The Homepayne Health and Residential Care Unit consists of two cottages each containing four semi-private bedrooms and a common room; health care is provided in one, and residential care in the other. The advantages of the unit are: (i) a variety of care can be given under one roof with a minimum expenditure of funds; (ii) chronic and convalescent care can be given in a proper environment; (iii) active treatment beds can be released for active care, and patients more rapidly treated; (iv) health care patients and residents receive a well-balanced diet; (v) patients requiring specialized treatment no longer have to leave the community; and (vi) the site of the unit enables care to be given on an individual basis, and personal problems can be solved as they arise. The scheme is the first to be organized in Ontario, and since opening day there has been between a 50 to 100 per cent occupancy rate in health care, and between 38 and 88 per cent rate in residential care.

307. MARGOLIS, E. **Health care in a changing society: the health services of Israel.** *Medical Care*, Philadelphia, 1975, Nov., vol. 13, no. 11, pp. 943-955.

With the emergence of the State of Israel and the mass immigration of people from various backgrounds, cultures and values, the problem of health care for such a varied number of people arose. The existing medical organizations were unable to cope with the situation. Three medical organizations are described: the first medical school in Jerusalem which opened in 1949; Kupat Holim, the first workers' health insurance organization in Israel, founded in 1911; and the Israel Ministry of Health, the successor to the Department of Health of the British Mandatory Administration. The health services have not yet been considered as a political issue and are consequently fragmented into numerous self-contained authorities. The health organizations must accept a broader view of health with greater emphasis on social and community medicine rather than medical technology in order to cover health care in all its aspects—preventive, curative and rehabilitative. Recently the demands for reform of the system have increased.

PLANNING, DESIGN AND CONSTRUCTION

See also Abstract Nos. 313, 429, 448

308. SCHNARR, B. **Hospital projects: how to do them in 20 easy steps.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 42-44.

Specific problems encountered by hospitals wishing to develop new schemes or to develop existing plans, as well as renovating or building projects, vary from hospital to hospital. A comprehensive policy and procedure for hospital projects has been developed so that it can be applied to any scheme. It consists of a series of 20 steps which, if logically followed, will result in the completion of most schemes. Some projects will not require all 20 steps, others may need more, but the basic plan can be adapted to suit all needs. Many of the problems can be solved by the existing establishment of the hospital, or by the skilful use of an adequate and appropriate policy.

309. HOEFNAGELS, K. L. J. Model van een ziekenhuis planning gericht op volwaardigheid en doelmatigheid. **[Model for a hospital planning study based on value and efficiency.]** Tilburg, Bergmans, 1975, [vi], 144pp.

Using the criteria of optimal composition of medical staff and existing distribution of patients by the level of care needed, this study develops a national hospital plan based on three types of hospital: (i) a basic hospital with a minimum capacity of 250 to 300 beds and a basic set of functions; (ii) a standard hospital with 600 to 700 beds and an optimal set of functions; and (iii) a regional, teaching hospital with at least 1,000 beds. The Netherlands could be divided into 12 independent regions each with more than one million inhabitants. Each region would have a teaching hospital and would be divided into areas each with a standard hospital; only where demographic conditions made it imperative would basic hospitals be allowed. It is suggested that 34 centres should have one or more standard hospitals and 22 should have a basic hospital; this is a reduction of 50 per cent in the present 120 hospital centres. [This abstract has been prepared from an English summary of the report.]

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

See Abstract No. 438

BUILDING: TENDERING, ETC.

310. HAWKINS, W. E. **Project planning to the tender stage: a health service view.** *Building Technology and Management*, Ascot, 1975, Nov./Dec., vol. 13, pp. 27-28.

The many factors which must be taken into account at the pre-tender planning stage of National Health Service projects are outlined. The advantages of planning are that: technical and clerical resources can be balanced throughout the year; realistic targets can be set; improved co-ordination and service can be given, and special requirements accommodated; confusion is reduced and greater dissemination of information is

possible; consequences of change can be appreciated; queries regarding starting dates and duration of contract can be quickly answered; and a team spirit is developed. Suggestions for methods of planning are given.

311. BLAIVE, P. and SICARD, P. Le nouvel ensemble hospitalier et universitaire de la Timone à Marseille: la coordination de l'opération. **[The new La Timone teaching hospital at Marseille: co-ordination of operations.]** *Techniques Hospitalières*, Paris, 1975, Nov., vol. 31, no. 362, pp. 65-73.

This paper describes the planning and co-ordination of operations during the construction of La Timone teaching hospital at Marseille, which was opened in June 1974. It has 1,000 beds for adults and 500 for children. The preparation of the site necessitated a transfer of some services, adaptation of a few buildings, construction of temporary accommodation and the pulling down of the old buildings. Completion of work on time was due to a good preliminary study, good organization and co-ordination and the permanent presence on the site of the architects, the co-ordinators and the representatives of the contractors and the administration. Brief details are given of the accommodation and facilities provided. Co-ordination of the project was the responsibility of a liaison body consisting of administrative staff and contractors' representatives. Details are given of the meetings held. A detailed programme of all studies was established with a view to observing a strict order for the various schemes and joint plans. A procedure for the circulation of plans was set up and recorded on punch cards. The PERT system was used for the elaboration, control, curtailment and specification of the programme of work. A total of 6,000 initial activities were grouped in five sub-networks the details being worked out by blocks and floors. Eight photographs and three drawings are included.

HOSPITAL DESIGN

312. BORUP, A. **Hospital design today, hospital design tomorrow.** Copenhagen, National Health Service of Denmark, 1975, 320pp.

This volume presents the results of a research project inspired by the fact that it has become absolutely essential to find new procedures and methods for the future design and construction of hospitals. The report is divided into two main parts: a historical study of the background and development of the hospitals of today; and a report on the possibilities at our disposal for a better solution to the problems of hospital design in the future. The purpose of the project and its design examples is to provoke a debate. The latest developments in the field of medicine and in the organization of the work at hospitals, together with the latest developments in personal transit systems and building systems, form the basis for the design examples advanced. Photographs, plans, diagrams and tables are included.

313. HARDY, O. **Flexible planning allows hospital expansion.** *Dimensions in Health Service*, Toronto, 1975, Nov., vol. 52, no. 11, pp. 15-17.

Flexible planning for hospitals allows for greater expansion and use of facilities. Too often structures have been badly designed with a short-term view of their use, and, in spite of the developments in site planning and use, few master plans reflect the

anticipated life of the structures. Basic concepts of hospital facility planning are outlined which will allow flexibility of space use and easy expansion. Site selection and planning should involve use of an objective methodology and the master site plan should be prepared by professional planners; the flexibility and expansion of the building will appear as a preconceived plan, with thought given to heating and air-conditioning systems. The life cycle cost of most physical facilities can be reduced through some added expenditure at appropriate times to gain future savings through better flexibility and expansion.

314. LEQUY, J.-C. and MONTOIS, H. Conception architecturale d'ensemble de quelques hôpitaux en cours d'étude ou de réalisation. **[Overall design of several hospitals in the planning or construction stages.]** *Hôpital Belge*, Bruxelles, 1975, Sept./Oct., vol. 18, no. 117, pp. 11-40.

Five new hospitals (four in Belgium and one in Zaire) and a home for the elderly, all designed by Henri Montois and Associates, are briefly described. Three of the Belgian hospitals are now under construction; work on the fourth has not yet begun. The short text is accompanied by a photograph or model of each project, and by plans of the general layout and plans of one or more floors, a typical unit, and a typical single or double patient room.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

See also Abstract No. 311

315. AUROUSSEAU, P. L'hôpital d'Auch. **[Auch Hospital.]** *Techniques Hospitalières*, Paris, 1975, Dec., vol. 31, no. 363, pp. 61-65.

A new general hospital at Auch was first proposed in 1960 and construction of the 477-bed hospital (architects: Gardia, Zavagno and Sauvage) was completed in 1974, at a cost of 50 million French francs. It is of conventional construction and has three wings, each of five storeys. Only the operating theatres, resuscitation rooms, delivery rooms, and premature and newborn baby departments are air-conditioned, but all windows are fitted with thermopane glass and roller blinds and there are sun-breaks at intervals on external walls which face the sun. There is a comprehensive fire detection and prevention system, with means of clearing the corridors of smoke. Running costs are discussed in some detail, in particular the cost of electricity and gas.

316. OYEN, M. van. Het nieuw Sint-Janshospitaal te Brugge. **[The new Saint John's Hospital, Bruges.]** *Hôpital Belge*, Bruxelles, 1975, Sept./Oct., vol. 18, no. 117, pp. 43-50.

This hospital, to be completed by the end of 1976, is set in about 62 acres of ground and comprises a V-shaped, 15-storey ward block, joined at the point to a triangular-shaped, eight-storey medico-technical block which has on one side the casualty department, on the other side the treatment block and on its base the main entrance leading into the central hall. One wing of the ward block leads to a boiler house, a technical building and a refuse disposal plant. In the angle between the two wings are a chapel, restaurant and auditorium. At right angles to the treatment block is a 120-bed

unit for the chronically ill. The grounds contain a car park for 1,000 cars, buildings for radioactive waste and explosive products, water purification plant, oxygen centre and heliport. Standard ward units have a minimum of 28 beds divided over three four-bed, three double, eight single and two isolation rooms. The layout of the medico-technical block is explained in a diagram. Descriptions are given of wards, furniture, beds, pneumatic refuse disposal and the transport system. A plan of patients' rooms, a ground plan of the hospital and a photograph are included.

DESIGN OF SPECIAL DEPARTMENTS

See Abstract No. 384 (Laundries)

DESIGN OF SPECIAL HOSPITALS OR UNITS

317. Poliklinik und Apotheke in Rostock-Lütten Klein. **[Polyclinic and pharmacy, Rostock-Lutten Klein.]** *Achitektur der DDR*, Berlin, 1974, Oct., vol. 23 no. 10, pp. 620-623.

The new polyclinic at Rostock, East Germany (architects: Martin Halwas & Hans Fleischhauer, Rostock) consists of a main three-storey block linked by a connecting building housing the entrance area and medical records department to a two-storey block housing the pharmacy and vaccination centre. The main block has surgeries for four general practitioners and consulting rooms for 13 specialties. There are also laboratories, X-ray and physiotherapy departments, ante-natal advisory centre, and other advisory services. The rectangular main block is built round two courtyards. The paper includes three floor plans, an elevation and five photographs.

318. Barneklinikken 1975—Regionsykehuset i Trondheim. **[Children's department, Trondheim Regional Hospital.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 8, pp. 445-472.

The children's department at Trondheim Regional Hospital (architects: Arnstad and Heggenhougen) was opened in October 1975. It is responsible for the treatment of all children up to the age of 14 in the county of South Trondheim and special cases from North Trondheim, parts of Nordland and Møre-og-Romsdal. The department is divided into premature, babies', infants' and older children's wards, an allergy ward, and a common isolation ward. Out-patient facilities include an allergy diagnosis unit and a child health unit. The constructional plan is based on the large (720×720 cm.) module, with a double corridor system. The basement houses air raid shelters and an incinerator and the ground floor changing rooms and the nine-bed isolation/acute ward. Out-patient facilities are on the first floor; the second floor is shared between offices and the allergy wards; a 24-bed school-age children's ward occupies the third floor, and a 20-bed infants' ward the fourth. Beds are in groups of four or five, or in single rooms. The 23-bed babies' ward is on the fifth floor, and the machinery (lifts, fans, etc.) on the small top floor. The paper is illustrated with 11 plans of the various floors and individual ward facilities.

319. FLAA, A. Normer for planlegging av små alders- og sykeheimer. **[Standards for planning small old people's homes and nursing homes.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 7, pp. 416-419.

Current policy decisions in Norway point to the establishment of a nursing home in each local authority (district council) area, admitting all old people and anyone not eligible for admission to hospital. Rooms must therefore be planned flexibly. A prototype room must be suitable as living accommodation for a single person or couple or as a two-bed sickroom, and must be equipped with a shower, washroom, cupboard space and cooking facilities. The author proposes that rooms be large enough to take four beds, the increase in area over the 1970 standard for three patients being achieved at the expense of the corridors. Narrower corridors should have wider bays outside the various doors to allow beds to be turned. French windows opening onto a small individual garden should be installed instead of standard nursing home windows wherever possible. The paper is illustrated with a plan of a combined nursing and old people's home, with plans for rooms equipped as sick rooms or as pensioners' accommodation.

320. **Obstetrical department has meticulous arrangement for careful circulation.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 29-30, 32-33.

The maternity department at Seton Medical Center, Austin, Tex., has a carefully designed circulation pattern to separate various types of traffic. The circulation routes of mothers and babies, fathers and other public and doctors are described and shown on three plans. The department includes three delivery rooms, a 40-cot nursery, and staff and support facilities. It is on the second floor, is surrounded by a public corridor and is flanked on one side by the postpartum nursing unit. Most obstetrical packs and trays are stored on trolleys in the delivery corridor, stat items are stored in wall cabinets. Other supplies are available from a clean utility room. A soiled utility room serves both the delivery suite and the recovery room, each having its own door. All infant formula is stored on trolleys for off-the-shelf feeding. Trolley supply and retrieval is accomplished with minimum penetration of the delivery corridor. The labour room walls are wider than usual to accommodate monitoring equipment. Future expansion of the postpartum section will absorb a neighbouring extended care unit. The recovery room can easily be relocated to allow for this.

321. STEINBÜCHEL-RHEINWALL, C. von., LANGE, S. and RESNICK, H. L. P. Gedanken zur Einführung in die psychiatrische Krankenhausplanung. **[Some thoughts on presentation in the planning of psychiatric hospitals.]** *Krankenhaus*, Stuttgart, 1975, Oct., vol. 67, no. 10, pp. 376-386.

These observations on the planning of psychiatric hospitals are based to some extent on experience in the United States but not without having regard to specifically German requirements. A psychiatric centre can provide the following five types of service: emergency care; in-patient care; day, night or week-end care; out-patient care; and advice and training. On the integration of general and psychiatric hospitals the authors expose two design fallacies: (i) that modern psychiatry can be practised in a standard ward designed for non-psychiatric care; and (ii) that a different design for the psychiatric department of an integrated hospital means that psychiatric patients will be regarded as 'separate' from other patients. The paper includes design details of the various departments of a psychiatric hospital, department or centre.

322. LARSSON, G. Bostäder och centralt vårdhem för psykiskt utvecklingsstörda byggs helt med statsbidrag. **[Houses and a central home for the mentally handicapped built entirely with a public grant.]** *Landstingens Tidskrift*, Stockholm, 1975, Nov., vol. 62, no. 13, pp. 35-37, 39.

A former 64-place students' hostel and trade training school in Växjö are to be converted into a home for 50 adult patients and a 56-place day centre for in- and out-patients at a cost of s.kr. 1½ million. It is hoped that the siting of the home in a normal single-family housing estate will motivate social contracts between the patients and the community. The staff/in-patient ratio is 1:2. The home is primarily intended to admit adult patients from the county nursing homes, a third of whom are considered as mentally handicapped. A staff of 60 allows a wide measure of part-time working. The State has agreed to finance the whole project plus the cost-of-living-adjusted running costs, instead of the previous system of partial refunds to the county. The paper is illustrated with a staffing diagram and a plan of the day centre area as modified.

GARDENS AND GROUNDS, PARKING

See Abstract No. 439

ENGINEERING SERVICES

ELECTRICAL INSTALLATIONS AND EQUIPMENT

323. FISCHER, M. V. **Techniques of electrical construction and design. Volume 5. Designing electrical systems for hospitals.** New York, Electrical Construction and Maintenance, 1975, 64pp. $5.00

This book is intended for those who may be responsible in some way for the design, installation and operation of hospital electrical systems; it assumes the reader has a basic knowledge of electricity and electrical calculations. Aspects covered include: specifications, the electrical supply, the distribution system, essential electrical systems, grounding, ungrounded systems, lighting, signal and communication systems, and special considerations. Photographs, plans and other drawings are included.

324. KATZ, E. G. **Electricity conservation: there's more than one way to save.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 47-49.

This paper presents two approaches to electricity savings for existing hospitals—saving electrical energy and saving money. A comprehensive systematic programme that documents results will yield better results than the random application of conservation ideas. Some suggestions for an approach to saving are made including: the tabulating and charting of use and costs; keeping informed on charges; making an inventory of all equipment, etc., which uses electricity; listing practical savings actions; and establishing implementation priorities for savings actions. Initial efforts should concentrate on motors and heating devices rather than lighting. Experience at Mount Sinai Medical Center of Greater Miami in effecting savings in corridor lighting and

other measures at a Philadelphia area hospital are described. Implementation priorities for savings actions should be determined by the months required for savings to pay off implementation costs. Each month's usage should be compared with previous bills and in this way savings can be increased by successive cycles. A table shows a sample tabulation of electricity use and costs.

COMMUNICATION SYSTEMS

325. **Administrative arrangements: district courier service.** (Abstracts of Efficiency Studies in the National Health Service, No. 170) London, Her Majesty's Stationery Office, 1976, [2]pp. £0.11

Torbay Health District devised a courier service for collecting and delivering items between the 19 hospitals, nine health centres, nine clinics and 48 general practices in the district. Items needing collection were mail, pathology specimens, X-ray films, case papers, stationery supplies and used needles, syringes and other contaminated material. Every hospital, clinic and health centre was plotted on a map and 48 collecting points planned for the most effective routing of the service. Timetables were drawn up and two vehicles made available to deliver mail as early as possible each day and to transport speciments to the laboratory. Timetables of the service are given. The savings through using the service will be £1,000 each year; the receipt of specimens at specified times permits batch processing to be more effectively planned by the pathology laboratory, and the use of freeze packs ensures better conditions for the specimens. There is now an effective daily link between community staff, general practitioners and hospitals.

326. WÖRNER, H. O. and SCHACHT, H. P. Das Nachrichtensystem im modernen Krankenhaus am Beispiel des neuen Diakoniekrankenhauses 'Florence Nightingale' in Düsseldorf-Kaiserswerth. **[The communications system in the modern hospital, as shown in the new Florence Nightingale Hospital in Düsseldorf-Kaiserswerth.]** *Krankenhaus*, Stuttgart, 1975, Oct., vol. 67, no. 10, pp. 386-392.

The communications system of the new 421-bed Florence Nightingale Hospital at Kaiserswerth is described in detail. It includes: telephone installation with an internal network, primarily for external calls; call system, for communication between patient and nurse; intercom system for connecting the various departments with each other; and a paging system for reaching persons not available at a fixed point. The paper is illustrated with photographs and diagrams of the equipment used.

TRANSPORT IN GENERAL

327. FLATHEIM, G. Pneumatisk transport (sug) av sykehusavfall og skittentøy. **[Pneumatic transport (vacuum) of hospital refuse and dirty linen.]** *Sykehuset*, Oslo, 1975, vol. 38, no. 7, pp. 406-415.

Rogaland Central Hospital was due to invest n.kr.250 million (£12 million) in refuse transport. The amount of refuse produced is 20 to 40 litres per patient day, corresponding to 40 cu.m. per day (2,400 kg.) by 1980. Refuse is collected into double-layer plastic bags which are sealed and placed with the nylon dirty linen bags for onward transport.

Carriage by porters takes 40 to 45 hours a year per patient; it is an unpopular task which is labour expensive and is usually done by immigrant workers with a high rate of turnover. Five methods of internal transport were assessed, the cheapest being horizontal transport by ward staff to a pneumatic transport shaft. This reduces transport costs to a tenth and halves the total annual cost compared with porterage. Each input flap is fitted with a warning light and a lockable magnetic lid so that only one flap at a time can be opened. The shafts are emptied floor by floor, with periodic intervals for a general clearance of the entire system. The shafts are kept at below atmospheric pressure and thus act as a ventilation system. The original transport speed of 26m./sec. (55 m.p.h.) was too much for the bags, so it has been reduced to 10m./sec. (22½ m.p.h.). The paper is illustrated with a plan of the system installed and of a hospital kitchen waste disposal unit.

328. GUNNARSON, K. and SKOGSBERG, J. Simulering med dator som hjälpmedel vid dimensionering av ett komplett transportsystem. **[Computer simulation model for planning a complete transport system.]** *Sjukhuset*, Stockholm, 1975, vol. 52, no. 11, pp. 639, 641-643.

Gothenburg Eastern Hospital is being built with an automated box transport system for all internal transport. The six blocks are connected by a system of culverts accommodating pedestrian traffic, a double-track box transport system, a route for trolleys and pipes, conduits, etc., and a drainage system. The system installed to date cost s.kr. 10 million. Construction currently in progress required the capacity of the system to be doubled. Computer simulated models were constructed (using GPSS simulation language) to analyse requirements for those parts of the system connected to supply points. The model consisted of a number of blocks with various properties, a number of transactions to be moved between these blocks, and certain time limits (e.g., all patients to be fed within 45 minutes). Feeding one day's flow into the computer revealed that: (i) certain queueing bays were too small, causing bottle-necks and irregular operation; (ii) other queueing bays were under-used (too large); (iii) the priority system giving first right of choice at junctions needed modifying; and (iv) some trunk routes were under-dimensioned. The modified system has one more queueing bay (63) but has eliminated two junctions—at a saving in construction costs which paid for the simulation. The paper is illustrated by a plan of the hospital and culverts, a photograph of a box transport station, a computer flow chart, and 'before and after' diagrams of a section of the transport plan.

HEATING

329. BANNER, M. T. **Hospitals cope with the crunch.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 37-42.

Like other organizations in the United States, hospitals must do all they can to conserve energy. Methods such as reducing heating, cooling and lighting levels, sealing doors and windows, lowering the hot water temperature, improving insulation, etc., are commonly used. The Veterans Administration (VA) has made a study of the problem and has developed a programme which it believes will save 10 to 50 per cent of the energy they use. At the fairly new VA hospital in San Diego factors contributing

to savings are load shedding on a priority basis, minor lighting changes and a change in the order in which food trolleys are heated. An energy conservation committee meets regularly. The FEA and Blue Cross of Philadelphia are funding a project involving energy audits at six Philadelphia area hospitals. Heat recovery is one way of helping with the energy problem and it is being tried at several United States hospitals. Solar energy is also being experimented with. Suggestions for dealing with the energy crisis include: appoint an energy director; plan for the use of non-fossil energy sources; initiate an energy management programme; plan for short-term disruptions of supplies; and develop liaison with other health facilities and with state and federal energy professionals.

330. HOPPENWORTH, G. L. and MEAD, T. R. **Energy conservation and good plant operations go hand in hand.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 43-46.

In this paper the authors show, with special reference to the Swedish American Hospital, Rochford, Ill., how regular attention to a hospital's plant and equipment can improve heating and lower costs without lowering temperatures. A review of the facilities had been undertaken during the winter of 1968/69. Findings showed that slack could be removed from the system by upgrading procedures and facilities. In spite of a number of inefficiencies the heating system seemed to be doing its job fairly well and energy requirements were not exorbitant. The hospital's main boiler plant heats 377,000 sq. feet—the main building and two dormitories for the school of nursing. It is heated by three 600-horsepower boilers using natural gas. Some parts of the hospital date from 1918 and the radiators vary according to the age of the section of the building. Procedures investigated after the review included: temperature controls; boiler alarms; temperature settings of the fresh air handling units; and the chemical treatment of boiler water. The new procedures introduced required some changes in staff roles and eliminated the need for a second shift for maintenance men. The physical changes required fell into three categories relating to controls, basic operation and instrumentation. A number of changes relating to procedures and controls were made and various sections of the heat distribution system were given a complete overhaul in the summer. A table in the text covering six winters illustrates the effects of the programme. Besides saving energy the cost of chemical treatment was halved and the upgrading of the plant effected considerable savings in maintenance and repairs.

VENTILATION AND AIR-CONDITIONING

331. BOROVIK, E. B. and others. Gigienicheskie issledovaniya vozdukhoobmena v bolnitzakh. **[Hygienic investigations of air exchange in hospitals.]** *Gigiena i Sanitariya*, Moskva, 1975, Dec., no. 12, pp. 12-15; summary in English p. 15.

The results of investigations in two hospitals with different designs and technical equipment showed that the existence of a hall between the department and the staircase and lifts prevented to a considerable extent the spread of air currents into the wards. The presence before the ward of a hall, equipped with an air vent, resulted in a system of air currents that prevented the spread of infection from the corridor into the ward and vice versa. A ventilation system with individual vents in the wards, bathrooms and

toilets prevented the circulation of air from wards on the lower storeys to those on the upper storeys. [This abstract has been prepared from an English summary of the paper.]

MAINTENANCE OF BUILDINGS AND EQUIPMENT

See Abstract Nos. 330, 405

EQUIPMENT, FITTINGS, FURNITURE

BEDS, COTS, ETC.

332. BRITISH STANDARDS INSTITUTION. **Specification for hospital bedding. Part 1. Adult size spring interior mattresses.** (BS5223: Part 1: 1975) London, British Standards Institution, 1975, 6pp.

This standard provides specifications for spring interior mattresses suitable for the majority of adult medical and surgical cases; they are not intended for paraplegic patients. Two grades of hardness are specified, the softer for use on beds with spring bases, the harder for beds with rigid bases. The softer version should be used for geriatric patients. The mattresses have a sleeping surface and a non-sleeping surface. The standard specifies dimensions and masses, materials, construction, manufacture, stitching, performance requirements, condition and cleanliness, marking and packaging.

EQUIPMENT GENERALLY

See Abstract No. 405

STAFF GENERALLY

See Abstract No. 390

STAFF COMPLEMENTS

333. RUSHWORTH, V. **Manpower planning at district level.** *Nursing Times*, London, 1975, Dec. 18, vol. 71, no. 51, pp. 2032-2033.

Manpower planning is necessary within any organization so as to anticipate or highlight shortfall or redundancy areas. In order to determine the needs six steps should be taken: (i) define the objectives of the organization; (ii) collect all relevant information; (iii) analyse the data collected; (iv) decide on the necessary action; (v) implement the decision; and (vi) monitor and review the manpower situation regularly. A table of procedures for manpower planning within a health district are proposed.

334. LIPSON, S. H. and HENSEL, M. D. **Hospital manpower budget preparation manual.** Ann Arbor, Mich., Health Administration Press, 1975, x, 192pp. $7.50

This manual is in two parts: (i) an explanation of the technical aspects of using a computerized manpower budget programme, as it was developed for a demonstration hospital under a Public Health Service grant; and (ii) a case study which reviews the development of the budget and manpower control activities at the demonstration hospital during the four years of the grant period.

RECRUITMENT

See also Abstract Nos. 349, 357

335. WERTHER, W. B. **Utilization of part-time employees can enhance operating efficiency.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 47-50.

The problem of staff shortages in hospitals can be partially overcome by using part-time staff. Retired and other former employees and housewives are likely to be the most fruitful source of part-time workers. These may cover a very wide range of skills and are a largely untapped source of manpower. A significant advantage of part-time staff is that they provide scheduling flexibility and help to cater for peak demands. Training costs for two new employees trained together are little more than for one. Other potential savings occur because part-time staff are not usually eligible for the full range of fringe benefits, neither do they work overtime. They are less likely than full-time staff to join unions, turnover is usually lower and the absenteeism rate less if they are not eligible for sick pay. Possible disadvantages are: the increase in social security costs; the need for more supervision; and increased demands on record-keeping and payroll. Careful selection of part-time staff can reduce the need for much training. The disadvantage of increased workmen's compensation is offset by the fact that part-time staff being less tired at the end of their shifts are less likely to have accidents and the organization's exposure to risk is not increased by the part-time employee.

STAFF MANAGEMENT

See also Abstract Nos. 350, 351

336. FAIR, J. S. **Unionized department heads: a portent of change in hospital management?** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Nov./Dec., vol. 17, nos. 11/12, pp. 55-56, 58.

The historical background and the future implications of the move from hierarchical management to collective bargaining and unions in British Columbia are outlined. Changes in employment legislation are summarized and the possible effects on hospital management evaluated. The effects of including hospital department heads in bargaining units will have an impact in three areas: (i) labour relations; (ii) personal allegiances; and (iii) organizational structure. A close review of management practices and techniques will have to be carried out in all Canadian hospitals as a result of the decision of the Provincial Labour Relations Board; this review should be taken as an opportunity for constructive action, not merely a negative force requiring a reaction.

337. AMERICAN HOSPITAL ASSOCIATION. **Employee-labor relations in health care institutions.** Chicago, American Hospital Association, 1975, [194]pp. $14.00

This loose-leaf manual on staff relations in United States hospitals is in 10 sections: (i) introduction; (ii) National Labor Relations Act, as amended 1974; (iii) Federal Mediation and Conciliation Service; (iv) collective bargaining—issues and processes in health care institutions; (v) National Labor Relations Act interpretative memoranda; (vi) good personnel practices; (vii) selected readings; (viii) resource material; (ix) glossary; and (x) institute materials.

STAFF TRAINING

See also Abstract Nos. 352, 355, 358, 390

338. JONES, R. L. and NOVAK, D. G. **An alcohol education program for general hospitals in Texas.** *Texas Hospitals*, Austin, 1975, Dec., vol. 31, no. 7, pp. 16-21.

New legislation has resulted in more cases of alcoholism being brought to hospitals and other organizations instead of prisons in Texas, and consequently an alcohol education training scheme was evolved for all health workers. There was much co-ordination between the Texas Hospital Association and the Texas Commission on Alcoholism, and a training scheme developed. The main features are: (i) a series of 20 hospital in-service educational programmes on 'care and management of the alcoholic/alcohol abuse patient'; (ii) a 200-page resource document on alcohol education in the hospital; (iii) a training seminar for hospital in-service training organizers; (iv) a series of papers published in *Texas Hospitals* on alcohol abuse; and (v) individual lectures on alcohol treatment and care of patients delivered to hospitals. A sample number of 35 hospitals received training courses in the first year of the scheme, and the reaction was evaluated. In the second year a further 64 hospitals volunteered to receive the course. Improvements have been made in the basic curriculum, but the scheme has successfully served as a liaison between hospitals and agencies dealing with the treatment and rehabilitation of alcoholics.

STAFF WELFARE

See also Abstract No. 402

339. ALIX, G., VIDELIN and MOINARD, D. De la médecine préventive hospitalière. **[Preventive medicine in the hospital.]** *Gestions Hospitalières*, Mantes, 1975, Nov., no. 150, pp. 789-793, 795-797.

The first part of this paper gives details of the most common complaints diagnosed by members of the Department of Preventive Medicine among nursing staff at Poitiers Hospital Centre in 1973 and 1974. Varicose veins were found in 10 per cent, digestive disorders in six per cent, and arterial hypertension in over three per cent. The possible connection between working conditions and the incidence of some complaints is stressed. It was noted that complications occurred in a quarter of all full-term pregnancies among staff. In the second part of the paper, methods of assessing the costs and productivity of a department of preventive medicine are described. There are nine tables.

340. GREGG, D. B. and GIBSON, M. S. **Employee tuberculosis control in a predominately** [sic] **tuberculosis hospital.** *Journal of the South Carolina Medical Association*, Florence, 1975, May, vol. 71, no. 5, pp. 160-165.

In 1968, tuberculosis control measures for staff at the State Park (S.C.) Health Center, were increased from periodic chest X-rays to a plan of tuberculin testing and preventive treatment for tuberculin converters and reactors. The results over a period of five years revealed two new active cases and one reactivation. There is a need for tuberculosis control schemes for all staff, not only those working in a tuberculosis hospital, since the probability of spread is greatest in the contagious cases being diagnosed, before preventive treatment can be instituted. There is a current need for using hospitals as diagnosis centres and consequently all hospitals should adopt a tuberculosis control scheme for their staff.

341. SABATTINI, P. and NARDOZZI, L. Le vaccinazioni del personale ospedaliero. **[Vaccination of hospital staff.]** *Ospedale*, Torino, 1975, Dec., vol. 28, no. 12, pp. 307-311.

Vaccination of hospital staff in Italy is not subject to specific legislation, and practice therefore varies from one hospital to another. Anti-typhoid vaccination, however, can be considered obligatory for nursing, catering, laundry, cleaning, and transport staff. The regulations do not specify whether it should be administered orally or parenterally; the advantages of the former are underlined. Anti-tetanus vaccination is now obligatory in infancy, but under existing legislation re-vaccination is mandatory in the hospital for technical and cleaning staff only. Vaccination against cholera is only done during epidemics; it confers immunity for a short period only. Anti-influenza vaccination is optional and has not been very popular; only 10 to 15 per cent of staff requested it during the recent epidemics.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

See also Abstract No. 345

342. Être directeur général. **[To be a hospital director.]** *Hospitalier*, Mantes, 1975, Nov./Dec., no. 319/320, pp. 17-64.

This special feature contains 11 papers on the role and function of the hospital administrator, including papers on the views of a nurse and on financial management and training for it.

MEDICAL STAFF

343. WHINCUP, M. H. **Legal rights and duties in medical and nursing service.** (Case Studies on Hospital Management Law and Practice, Volume 5) Beckenham, Ravenswood Publications, 1976, xii, 54pp. £6.50

This booklet is intended to give hospital and health service staff, especially doctors and nurses, such information on the legal aspects of their duties as may help them to do their work correctly and with confidence. It covers: (i) security of employment; (ii) safety of employment and of premises; and (iii) the practitioner's duties.

344. HUNTER, K. R. **The rôle of a physician with a special interest in clinical pharmacology and therapeutics in a district general hospital.** *Health Trends*, London, 1975, Nov., vol. 7, no. 4, pp. 75-78.

This paper describes the ways in which a doctor with a special interest in clinical pharmacology can contribute to the hospital service and justify an appointment in a district general hospital. Rapid developments in drug production, often involving synthetic substances with possible harmful side effects, have necessitated the training of some doctors specifically in drug investigation in man. The first task of these clinical pharmacologists is consequently to improve patient care by promoting the safer and more effective use of drugs. Ideally, every area health authority should have at least one such specialist at consultant level. Although he will act as a consultant in general medicine, the clinical pharmacologist has a different approach to solving clinical problems from his colleagues who are specialists in regional anatomical medicine. He will consider instead the factors affecting each drug's pharmokinetics throughout the patient's body. The clinical pharmacologist should also pass on his knowledge, for example by keeping in touch with the clinical pharmacology unit at his regional university hospital, and also by attending conferences. He should help with the training of junior hospital medical staff, particularly postgraduates. Outside his hospital, he should work closely with general practitioners in his district. Monitoring adverse drug reactions and providing drug information are other important aspects of his work. Such physicians, whilst practising general medicine, provide a valuable service due to their special experience in modern therapeutical problems.

345. De medisch directeur als manager van de ziekeninrichting. **[The medical director as hospital manager.]** *Ziekenhuis*, Utrecht, 1975, Dec. 3, vol. 5, no. 23, pp. 592-596.

The increasing complexity of a modern hospital requires the director to have more than just a medical training. The present management training course for medical directors provides no more than a general orientation and should be seen as a first phase to be followed by courses in special subjects, such as planning, organization, finance, etc. A committee set up to study the problems recommends in its report that hospital management training courses should also be open to nursing and finance directors. It suggests various forms of training possibilities. As a starting point a training course in three phases is required: (i) basic general management; (ii) follow-up courses in special subjects; and (iii) intensive six-week management training. Also proposed is a management course for hospital/health care as a two-year postgraduate training. Special training for socio-medical officers is also suggested. The aim is to achieve a pattern of training courses which need not be centralized.

NURSING STAFF

See also Abstract Nos. 343, 450

346. FLYNN, B. C. **Study documents reactions to nurses in expanded roles.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 81-83.

In a one-year demonstration programme at a mid-western medical campus, four registered nurses were prepared to practise as medical nurse clinicians. A study was

made to document the reactions of health care providers (doctors, nurses and others) and patients who had direct contact with the nurse clinicians. A review of the literature had identified three hypotheses relevant to acceptance of nurse clinicians: (i) that the nurse clinicians' own patients would accept them better than other patients would; (ii) that there would be no difference in the acceptance of the nurse clinicians by doctors, nurses and other health workers; and (iii) that there would be no difference in acceptance in each of the settings tested. Three questionnaires were prepared, for professional workers, non-professional workers and patients. About two-thirds of each of the four groups sampled thought the nurse clinician could take a medical history of most patients but responses regarding her doing physical examinations and regulating medication were less favourable. There was general agreement regarding the nurse clinician visiting patients at home or deciding whether a patient should see a doctor. Further questions about the training of nurses for an expanded role, the place of a nurse clinician in the hierarchy, and problems she might encounter, were put to professional health workers only. Scoring of items, reactions of co-workers and reactions by setting are discussed.

347. HOHLIN, D. Die Rolle des Pflegedienstes im Krankenhaus. **[The role of the nursing service in the hospital.]** *Krankenhaus*, Stuttgart, 1975, Sept., vol. 67, no. 9, pp. 346-351.

The author presents his views on the developing role of nursing services in the modern hospital. He stresses the need, in the increasingly technical atmosphere, for personal care of the patient. Specialization is inevitable but must be kept within bounds: the tendency to regard, for example, intensive care nursing as of more importance than normal care must be restricted. The use of part-time and foreign nurses has both advantages and disadvantages. The practice of leaving unqualified nurses in charge of wards at night, still common in many German hospitals, is indefensible. If the nursing service is to play its proper part the following are essential requirements: legally established demarcation of nursing duties; recognition of nursing as an independent hospital service; in-service and external post-basic training; and patient- and practice-oriented training of all grades of nursing 'managers'; the use of practice-oriented work schedules; continuing critical examination of work flow and working methods; the introduction of practical nursing systems; critical examination of the performance of non-nursing duties by nurses; and research work.

348. WEYMAN, A. **The nurse and the system.** *Health and Social Service Journal*, London, 1975, Dec. 20/27, vol. 85, no. 4470, p. 2789.

The problems of training nurses and their conditions of service are a source of unrest in the organization of the health service. The nursing profession is the largest occupational group within the service, with an immense impact on the functioning of the system, but not enough response is received from the profession. Nurses are aware of the need for change, but are unable to conceive alternative ideas to problems. Nurse training is vital for the formulation of ideas, yet at the end of three years' training 30 per cent of any intake will have given up their training and many will be apathetic. Nurses complete their training by adapting themselves to the system, accepting the hierarchy. Isolated attempts at altering the system have been made, but the Briggs

Committee on nursing ignored this aspect of nursing, being more concerned with introducing a two-step qualification process and relating formal education to clinical experience.

349. SERISE, LABADIE and DONES. Le devenir des infirmières. **[The future of nurses.]** *Revue Hospitalière de France*, Paris, 1975, Dec., vol. 39, no. 286, pp. 931-934, 936-939, 941-947, 949-951, 953.

Of the 1,645 nurses who trained at four hospitals in Bordeaux between 1960 and 1970, more than 90 per cent replied to a written questionnaire which was designed to discover how many nurses had left the profession and for what reason. On average, 80 per cent were still working as nurses; the percentage ranged from 95 for those who qualified in 1970 to 70 for the 1960 group. Marriage and/or children were the main reasons for giving up work. As the husbands of the majority of these ex-nurses belonged to the middle and upper income groups, it is suggested that these women did not need to work. Twenty-seven per cent of those at work in hospitals and 37 per cent of those in private clinics would have preferred to work elsewhere, e.g., as a factory nurse or in a doctor's surgery, where hours of work are presumably more regular. The answers to the questionnaire are analysed in a series of 27 tables.

350. BAJNOK, I. **The 12-hour shift: 'It's good for nurses, but is it good for the patients?'** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 25-26.

In less than two years all the registered nursing staff at University Hospital, London, Ont., have changed to a system in which they work seven 12-hour shifts every two weeks. A survey to compare the quality of care provided by nurses working the 12-hour shift and the eight-hour shift revealed that although there is no overwhelming evidence to support the superior value of the 12-hour shift it is possible to conclude that the 12-hour routine has definite merits. The nurses on the 12-hour routine had a greater knowledge of the patients, completed nursing records more fully, and found communication with patients less difficult. The study was undertaken when the system was relatively new, and a further survey may reveal a significant result in favour of the 12-hour shift.

351. CRUMP, C. K. and NEWSON, E. F. P. **Implementing the 12-hour shift: a case history.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 20, 22-24.

A 12-hour day and forty-hour week for nurses has been introduced in University Hospital, London, Ont. There is an average of seven shifts of 11 hours and 25 minutes over a two-week period. The seven shifts are grouped in sets of two and three days with at least two consecutive days off between sets and at least every second week-end off. There are several basic two-week cycles of work. The long-term characteristics of the scheme were 170 working days a year as against 245 (assuming a three-week holiday period), and off-duty week-ends being extended to long week-ends if required. Shifts were reorganized to be from 0730 to 1930 hours. The scheme was considered a success, both by the nurses and by the administrative staff.

352. FELDMANN, H. Das Krankenhaus als Ausbildungsstätte für Krankenpflegeberufe. **[The hospital as a training place for the nursing professions.]** *Krankenhaus*, Stuttgart, 1975, Sept., vol. 67, no. 9, pp. 351-355.

As should be the case in all professional training, nursing education must reflect future requirements. During training the student nurse must be given the opportunity to assume responsibility on a gradually increasing scale. The student must be prepared to become a member of a therapeutic team and be taught that, in an increasingly technical environment, the patient needs more guidance and personal care than ever: nursing still means continuous contact with the patient and caring for his basic needs. Scientific and technical medicine is in danger of losing sight of the sick human being and his needs: this makes the nurses' work important and this must be reflected in their training.

353. POLLERT, I. E. **Concepts of experience and evaluation as educative processes in Registered Nurse Baccalaureate School Program.** *International Journal of Nursing Studies*, Oxford, 1975, vol. 12, no. 4, pp. 205-209.

Guidelines to facilitate the transition of registered nurse to senior nursing courses were based on the concept that evaluation cannot be separated from learning and from the care of the patients as individuals. Problems of clinical evaluation arise as a result of the individual needs of students and their varied backgrounds. During the training scheme at Indiana School of Nursing all students systematically assess their own learning needs whilst they are nursing, and share their experiences of nursing situations with their contemporaries, lecturers and the staff of the hospital where they are training. The students are able to integrate new knowledge with their previous knowledge, and gain from the experiences of others, supplementing the specific lectures of the course with this knowledge.

354. STEIN, R. F. **A multimedia independent approach to learning.** *International Journal of Nursing Studies*, Oxford, 1975, vol. 12, no. 4, pp. 185-196.

A study to examine various aspects of the multimedia approach to learning was carried out in an American school of nursing over a period of two years. Independent laboratory learning was compared with traditional classroom teaching. Two groups of 30 were selected from a class of 120 students to be the control and experimental groups; the control group had a fixed number of classroom instruction hours, whereas the experimental group chose their own hours. The students preferred written material to any audiovisual methods but more demonstrations and practice were needed for all students in the nursing arts. The multimedia approach could be best used in conjunction with teaching skills, although the approach is useful for teaching the basic concepts, leaving the teacher to amplify or discuss the material. However, the most stimulating method of instruction is through the student-teacher relationship.

355. MACMILLAN, P. **Case studies for nursing management courses.** Tunbridge Wells, Pitman Medical, 1975, [viii], 119, 14pp. £3.50

The 10 case studies in this manual have grown out of typical situational problems experienced by students who attend the nursing management courses directed by the

author at Hammersmith and West London College. Also included are three integrative exercises. A separate course director's handbook is provided.

356. FRASER, D. and CORMACK, D. **The nurse's role in psychiatric institutions.** *Nursing Times*, London, 1975, Dec. 18, vol. 71, no. 51, occasional papers, pp. 125-127; Dec. 25, vol. 71, no. 52, occasional papers pp. 129-132.

With the increasing demand from nurses in the psychiatric field to be recognized as therapists in their own right, some of the factors militating against this development are examined and solutions proposed. It is argued that nurses have enormous therapeutic potential which is inherent in the types of interactions they have with patients. A vast reserve of this potential remains untapped however. The paper highlights the frustration of nurses who wish to develop their full therapeutic potential and who are effectively prevented from doing so by the prevailing psychiatric ideology within which they work, by their increasing commitments to administrative duties, or by the inadequacies of the present training system.

357. HEGARTY, W. H. **Organizational and sociological factors affecting attrition in collegiate schools of nursing.** *International Journal of Nursing Studies*, Oxford, 1975, vol. 12, no. 4, pp. 217-222.

An analysis of the leaving rates in colleges of nursing in the United States reveals a 40 per cent loss each year. Previous studies have analysed the problem in terms of school performance and test score prediction; this study analyses the problem from the variables encountered within the nursing college environment. A questionnaire covering a four-year period was sent to 150 colleges, of which 60 returned information. The conclusions reached include: (i) the leaving rate for non-academic reasons accounted for 70 per cent of the total; (ii) older nursing colleges had lower rates; (iii) the variety of teaching methods did not alter the rates; (iv) 40 per cent of nurses left because of a change in their career aims, and 32 per cent left to get married; (v) colleges using the personal interview as a screening device had significantly lower rates; and (vi) colleges with lower rates had far more social activities than colleges with high rates.

OTHER PROFESSIONAL AND TECHNICAL STAFF

358. BLACKBURN, J. L. **Clinical pharmacy programs in Canadian faculties of pharmacy: a synopsis.** *Canadian Journal of Hospital Pharmacy*, Saskatoon, 1975, Sept./Oct., vol. 28, no. 5, pp. 154-159.

A significant aspect of modern pharmacy training is the emphasis on the effects of drugs, their use by patients and the relationships of the pharmacists with patients, rather than a study of drug products in isolation. The training of modern pharmacists and their courses have expanded rapidly during the last five years, with a greater stress upon the contact of the student with patients in hospital and community pharmacies. The courses at nine Canadian universities are summarized to enable pharmacists to be more aware of the changes taking place.

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 342, 355

359. BONNICI, B. Sociologie de la décision administrative à l'hôpital public. **[The sociology of administrative decisions in the public hospital.]** *Techniques Hospitalières*, Paris, 1975, Dec., vol. 31, no. 363, pp. 66-71.

Decision-making in French public hospitals now rests on a compromise between objective and subjective factors such as: the hierarchical nature of the bureaucratic system itself; the hospital's lack of independence, particularly in financial matters; conflicts between different groups; political factors; and the presence of trade unions on management committees. It is also caught between two not necessarily conflicting tendencies: a tendency to centralize some decisions (on the part of health service administrators, local authorities, etc.) and a tendency for decisions within the hospital itself to be taken either by non-administrators or only after close consultation with the latter. In other words the chief hospital administrator is no longer the sole arbiter of power at the apex of the pyramid. There is a danger that hospital administrators will come to play only a subsidiary role in hospital affairs.

360. JONGHE, E. de. Zorgenfuncties en sociaal-economische functies: interesse-conflict. **[Patient care and the socio-economic function of hospitals: a conflict of interests.]** *Acta Hospitalia*, Louvain, 1975, vol. 15, no. 3, pp. 214-229; summaries in French and English pp. 229-230.

This paper deals with the role of the hospital in the changing modern society and the tension this creates, particularly between medical staff and management. Two contradictory theories are discussed. Firstly the dualistic theory which sees on the one hand the management in charge of nursing and technical services including staff, and on the other hand the medical staff, acting independently within this framework, having freely negotiable hospital contracts and regarding the hospital as an extension of their private practice. This dualism is emphasized by the present statutory systems of salary payments and hospital fees. Secondly the monistic theory which places the patient in the centre and aims at close co-operation between the fields of medicine, nursing, techniques, administration and the human aspect. Details are discussed including finance, hospital ownership, insurance companies, laymen on hospital boards. Co-operation between various groups and changes in attitudes are urged.

361. UNDALL, B. Föreställningar kring organisatoriskt utvecklingsarbete. **[Ideas on organizing development work.]** *Landstingens Tidskrift*, Stockholm, 1975, Nov., vol. 62, no. 13, pp. 66-68.

The organization or reorganization of a concern involves technical measures (training, staffing, arranging planning and leadership, and laying down work routines) and social measures (to produce understanding, co-operation and active future involvement and development). Any concern thus comprises technical and social aspects. In organizational planning one must set up one's aims; consider the factors affecting them; and decide on the solution of the most vital problem—inter-personal co-operation. These decisions are traditionally the responsibility of the management committee, and in a hospital environment take seven to 12 months to complete and be

effectuated. If management works in isolation from the staff, staff will only have a short time to adjust to the new routines, on whose development they have had no influence: the new routines will be regarded as dictatorial, unrealistic, unworkable, etc. Organizational planning must involve democratically elected (union and professional staff association) representatives at all stages, staff being kept informed of planning developments by periodic meetings and/or bulletins. The advantages and disadvantages of this method are summarized.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 324, 329, 330, 433

362. DECLERCQ, G. Het ziekenhuis bedrijfseconomisch benaderd. **[The hospital: a business economy approach.]** *Acta Hospitalia*, Louvain, 1975, vol. 15, no. 3, pp. 163-182; summaries in French and English pp. 182-183.

The need for a basic two-way approach by economists towards the modern hospital is discussed: (i) the macroeconomic approach which deals with problems such as: what proportion of the national income should be spent on health care; financing of the service; distribution of its finances; comparison of health care 'output' with other social services; optimal functional co-ordination with other services; demand for health care and what factors determine that demand; and impact of health services on national economic growth; and (ii) the microeconomic approach which deals with hospitals as a service to the community; concerns run for private profit; and non-profit making organizations. The last-named are discussed at length. They are financed by members' contributions or from their own capital funds and any profits are ploughed back for improvements. Over half the Belgian hospitals are run in this way and the author would like more research into their financial and managerial aspects.

363. EYSKENS, M. Het ziekenhuiswezen in de gemengde economie. **[Hospital care in a mixed economy.]** *Acta Hospitalia*, Louvain, 1975, vol. 15, no. 3, pp. 184-212; summaries in French and English p. 213.

The principles of a mixed economy, in which public and private initiative play a complementary role, are discussed. Hospital care, integrated within this system, must strike a balance between economic efficiency (input) and social purpose (output), which will lead to political decision making. On a microeconomic level, the author discusses aspects such as increased labour costs, shorter working hours, change-over of professions, collective wage bargaining, labour intensity, developments in medicine, demand for health care, inflation, size of hospitals, hospital tariffs, and marginal costs. On a macroeconomic level are mentioned the costs of social and health services, given with details over several years, their proportion of the gross national product, their efficiency, comparisons with other countries, and pensions. The author prefers marginal cost rules for hospitals and selectivity in social services. Six tables and five graphs are included.

364. GRANFIELD, M. E. **Resource allocation within hospitals: an unambiguous analytical test of the A-J hypothesis.** *Applied Economics*, Andover, 1975, Dec., vol. 7, no. 4, pp. 241-249.

An examination of resource allocation in a private, non-profit-making hospital,

regulated to earn a zero rate of return vis à vis the Averch-Johnson hypothesis, produced the discovery that it is the existence of the zero profit constraint that produces the inefficient allocation result. The framework of the study was based on the hypotheses: (i) doctors do not individually seek to maximize profit; and (ii) medical specialties have different production functions implying different substitution variables. As a result the A-J effect can be applied to any organization in which profits are constrained from reaching their maximum level, and need not be confined to regulated monopolies. Human capital must be considered as well as physical capital in order to determine the true size of the A-J effect, as well as its distorting effects.

365. LETOUZÉ, D. **Hospital bed closures: a review of the Canadian experience and a report on the Ontario situation.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Nov./Dec., vol. 17, nos. 11/12, pp. 26, 28-32.

The need to provide more health services to the Canadian population at an economic price is becoming more immediate. A review of the hospital bed situation in Canada and the present situation in Ontario, defining the concepts of intra-hospital and inter-hospital closures reveals that very few provinces in Canada are actively reducing the total bed complements in general hospitals. Most provinces recognize the need for rationalizing services, but are content to rely upon the present system. In Ontario, since 1972, a large number of beds have been closed in the general hospitals. The closures, mainly as a result of government pressure, are intended to: (i) correct the oversupply of beds in certain areas of the province, and conform with existing planning standards; (ii) correct imbalances between the various levels of the present health care delivery system; and (iii) to promote regionalization and co-ordinate services.

366. MORGAN, D. M. **Share services and curb inflation.** *Dimensions in Health Service*, Toronto, 1975, Nov., vol. 52, no. 11, pp. 32-33, 37.

Cost-containment of hospitals and health services may be considered by three methods: (i) analysis of the work of the institution, which would cut operating costs by eight to 10 per cent; (ii) restrictions on schemes that might be carried out more easily and cheaply by outside organizations; and (iii) shared services if economically viable. Several schemes for sharing services are outlined: (i) group purchasing of drugs by the London and District Co-ordinating Committee on Pharmacy; (ii) South-western Ontario Hospital Computer Centre shares a computer with the majority of hospitals in the district; and (iii) a joint laundry and linen service—the London Hospital Linen Service. Further schemes for expanded shared purchasing and shared regional management are also outlined.

RUNNING COSTS

See also Abstract Nos. 398, 408, 420

367. AERT, J. H. van and MONTFORT, A. P. W. J. van. Het 'Basisonderzoek kostenstruktuur Ziekenhuizen'. **[The paper: 'Study of the bases for hospital cost structure'.]** *Ziekenhuis*, Utrecht, 1975, Nov. 19, vol. 5, no. 22, pp. 560-563.

This paper presents a picture of clinical functions carried out by various hospitals and compares the costs. Data were provided by 89 general hospitals, which were divided

into four groups according to the general and specialist treatment available, increasing in specialization from group I to group IV. The patients were divided into categories according to age, diagnosis, treatment, conditions of discharge, and type of health insurance. It was found that clinical treatment, average stay, staff per bed, cost per admission, investment per bed and number of private patients increased from group I to group IV. Four tables are included.

BED OCCUPANCY, ECONOMIC USE OF BEDS

368. HEWITT, D. and MILNER, J. **Inequality of the services received by individuals: a suggested index and an illustrative application.** *Medical Care*, Philadelphia, 1975, Nov., vol. 13, no. 11, pp. 928-933.

A study, based on the health care records of every member of 6,273 selected families in Ontario in 1971, assessed the amount of care received by individuals. Six groups of families in various areas of Ontario were evaluated; they had similarities in insurance levels, education, income level and proximity to health centres. A methodology was developed to transfer the information into a set of values. There was a clear distinction in values and, consequently, health care between the more prosperous, equable areas of South Ontario and the harsher, poorer areas of North Ontario. The methodology and results established: (i) the system is easy to work out provided all records are present; (ii) the statistics are reliable provided there are groups of individuals of 600 or more; and (iii) the description of the anomalies should be of interest to students of health care.

369. LAVERY, W. and MIKESELL, L. **Length-of-stay review by diagnosis—a case study.** *Hospital Medical Staff*, Chicago, 1975, Nov., vol. 4, no. 11, pp. 14-21.

In 1973, Memorial Hospital, St. Joseph, Minn., found that the introduction of a length of stay review was a logical step towards a revision of its medical care evaluation system. Differences in the average length of stay following the setting up of the system indicated changes in behaviour patterns, allowing the staff to re-assess the quality of care of the patient. The average length of stay for patients was six days in 1971, and in 1973 to 1974 this was further reduced to 5.5 days. The average length of stay for patients of 65 and over dropped to 9.8 days. An automated system was used as it allowed a greater use of the medical data bank by all medical staff.

EMERGENCY ADMISSION, EMERGENCY BED SERVICES

370. BATES, M. M. and SHARRATT, M. **The King's Fund Emergency Bed Service, London.** *Health Trends*, London, 1975, Nov., vol. 7, no. 4, pp. 78-82.

The King's Fund Emergency Bed Service (EBS) was established in 1938 and covers roughly the area of the Greater London Council. It arranges emergency admissions to hospital following requests from general practitioners; attempted suicides, poisonings and acute psychiatric emergencies are not included. The 24-hour service is administered by a secretary and a staff of 40. The EBS is a sensitive barometer of pressure on

National Health Service hospital beds in Greater London, and so can inform other interested organizations such as the Thames Regional Health Authorities of the demand at particular times. The EBS also serves the Medic Alert Foundation and regularly receives visits from medical and nursing students. A survey covering the period 1968 to 1974 shows that the pattern of applications to the service is of marked winter peaks and summer troughs. 'Yellow' and 'red' warnings are used to indicate epidemic periods. Graphs show the trends in applications during the survey, based on different age groups and sex. Similar emergency bed services now operate in Birmingham and Liverpool.

DATA PROCESSING

See also Abstract Nos. 328, 334, 375, 378, 416, 420, 425, 430

371. OLSSON, B. and PERSSON, L. Informationssystem for sjukvård i teori och praktik. **[Health care information systems in theory and practice.]** *Sjukhuset*, Göteborg, 1975, vol. 52, no. 12, pp. 729-731.

The facts stored by the health services are interrelated in a highly complex manner. They are divided into administrative and medical data, and virtually all information originates at clinic level (within or between clinics). Hospital costs are not so much in the hands of the administration as in those of the individual doctor and his choice of treatment. Problems at clinic level which affect costs and which depend on the transmission and comprehension of information include: (i) security—the ability to find records, etc., when needed and efficient checks on drugs and dosages prescribed; (ii) volume of stored records, and the work involved in finding individual record cards; (iii) communication, and the time wasted looking for information; and (iv) planning (waiting lists). The use of computers offers a solution to many planning problems, particularly if widely available at clinic level. It is, however, useless to computerize information retrieval in a laboratory using postal services and manual routines: analyses must be automated at the same time. Microfilm storage of records reduces volume and speeds retrieval. Where records are only kept for statistical purposes, means of identifying persons should be deleted before microfilming. Information systems must be developed to suit the demands of medical therapy, and not *vice versa*. Hospital administration is faced with the difficult choice between whether to go over to computers now or whether it can afford to wait and see what the next generation of facilities can do and what it will cost.

SECRETARIAL SERVICES

372. FRITH, R. **Get more out of your typists.** *Dimensions in Health Service*, Toronto, 1975, Nov., vol. 52, no. 11, pp. 11-12.

The Wellesley Hospital, Toronto, monitored the work of the medical typing pool with the aim of clearing an existing backlog. Several alternatives were suggested and examined: (i) hiring additional full-time typists; (ii) contracting out with existing agencies; (iii) increasing the productivity of the existing pool by changing systems and procedures; and (iv) setting up a pool of part-time typists to augment the main pool. As a result of the study a pool of part-time typists was set up in 1973 to work outside

normal working hours. The experience of using the part-time pool was that it was a reliable, economical and flexible solution to problems associated with seasonal variations in input, or in output due to holidays, sickness, etc., in the main pool. New systems introduced included: the recording system was replaced by long playing cassettes wired up to dictating microphones; and a magnetic card typing system allowed errors to be corrected without having to retype the entire draft. Efficiency has increased, with the result that the cost per line has decreased by 13 per cent. The review also helped to identify areas outside the main typing pool where improvements could be made, and reinforced management control.

LIBRARIES

See also Abstract No. 394

373. LEWIS, J. **Legislation and official pronouncements relating to the English health and welfare library services.** *New Zealand Libraries*, Wellington, 1975, Aug., vol. 38, no. 4, pp. 179-188.

An exposition is presented for the New Zealand Library Service of the various British acts and governmental documents from 1948 to the present day, relating to the provision of library services in hospitals and to housebound readers. The increasing pressure by the Library Association for recognition of the importance of the service has resulted in greater government involvement and improvements to the service, although there is still a long way to go.

374. BUNCH, A. J. **Hospital and medical libraries in Scotland: an historical and sociological study.** (Scottish Library Studies 3) Glasgow, Scottish Library Association, 1975, xii, 186pp. £8.00

This study is a descriptive history of all hospital and medical libraries in Scotland from the earliest times to the present day, including significant collections in non-medical libraries.

ORGANIZATION AND METHODS, WORK STUDY

See Abstract No. 372

MEDICAL RECORDS

See also Abstract No. 371

375. WAKEFIELD, J. S. and YARNALL, S. R. **The history database: computer-processed and other medical questionnaires. 3rd edition.** Washington, Medical Computer Services Association, 1975, [377]pp. $22.50

This publication is an analysis of different design approaches for acquisition of a database history. They fall into five classes: (i) questionnaire, not processed; (ii) questionnaire, manually processed; (iii) questionnaire, machine processed; (iv) questionnaire, computer processed off-line; and (v) on-line computer system. Each of

the approaches is discussed in a separate chapter, in which the system is described and its performance and cost are discussed. Input and output characteristics of each system are discussed separately and summarized in tabular form. A chapter on the problem-oriented approach has been added to this edition.

HOSPITAL STATISTICS

See also Abstract No. 371

376. TYRRELL, M, **Using numbers for effective health service management.** London, Heinemann Medical, 1975, [vii], 132pp. £3.50

This book has been written in the hope that it will help health service managers to understand how numerical information can assist them in their work. It is written with all health service disciplines in mind and, although some technical details are discussed, the book focuses on the interpretation of figures and on ideas for their presentation. The last two chapters are concerned with the National Health Service statistics currently available and the routine returns which have to be made.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION

See Abstract Nos. 343, 445

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 334, 364, 367, 409

377. PERRIN, J. **Should hospitals be in the fund raising business?** *Dimensions in Health Service*, Toronto, 1975, Nov., vol. 52, nos. 11, 12, pp. 38-40.

In order to have a successful money raising campaign the role of the hospital in the community must be clearly defined. The campaign must be carefully planned and several steps considered: (i) the organization of the campaign; (ii) development of an effective public relations scheme; (iii) budget for campaign costs; and (iv) development of the campaign with an ample supply of canvassers using new campaign methods. The hospital must assess its needs and ensure that the public is aware of them. The hospital board and all medical and administrative staff should be involved in the campaign, together with local dignitaries.

HOSPITAL ACCOUNTING

378. HORTON, D. **New APGL system is time saver.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Nov./Dec., vol. 17, nos. 11/12, pp. 66-67.

Twelve hospitals in British Columbia are participating in a computerized system which provides cheques and vouchers for accounts payable operating expenses. The

Accounts Payable General Ledger (APGL) system has been in operation since October 1974, and produces reports on accounts and the general ledger. The cost of the system is directly proportional to the number of invoice and voucher transactions processed each month. The benefits are that no longer does the ledger have to be posted, or trial balances listed, balanced or extended, together with accounts payable trial balances or payable cheques prepared, since it is all provided for in the computer program.

SUPPLIES AND STORES

PURCHASING

See also Abstract Nos. 380, 381

379. AMMER, D. S. **Simple monitoring system can prevent crippling errors.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 67-68, 70.

Clerical errors can do much harm to a hospital's material management process if not detected at an early stage but industrial quality control techniques can be applied to paperwork. The technique represents an application of statistical inference—a small sample of the day's or week's output being selected at random and carefully checked. It can and should be applied to every phase of the materials management cycle but as an example its application to the typing of purchasing orders is described. For purchasing a monthly check might suffice, but if it is done weekly it should not always be done on the same day. Repeated observations make it possible to establish a realistic mean error rate. Once the appropriate level has been determined a control chart should be drawn and prominently displayed. This shows the typists that their work is being monitored, encourages improved performance and enables the purchasing manager to monitor the activity. If the error rate exceeds the norm by more than 2½ standard deviations the process is seen to be 'out of control' and needs investigating. The chart is reproduced in the paper.

STORES

380. AMMER, D. S. **ABC analysis focuses attention on the items that really count.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 73-74.

'ABC analysis' is a systematic way of showing purchasing managers which items they should concentrate on. 'A' items are those for which the cost is high, either because they are intrinsically expensive or because they are used so extensively (X-ray film or disposable syringes); low value items such as paper clips would be classed as 'C', and 'B' items would have a usage value between the two. When purchases are ranked in order of total annual value of usage it is seen that about 70 per cent of the money is spent on fewer than 10 per cent of the items. Conversely only about 10 per cent of the money is spent on about 70 per cent of the items. The variance in spending has implications for purchasing and inventory control. Since spending on an average 'A' item is 49 times greater than on a 'C' item the purchasing manager's time and effort is obviously far better spent on the former. With regard to inventory control it

is evident that stocks of 'A' items should be kept low even though this needs careful supervision to prevent running out. On the other hand a large stock of 'C' items can be held and virtually forgotten about. The system reduces both stock-outs and inventory investment. If a hospital were willing to invest in a three-month inventory stock-outs might be reduced to one per cent. On a one-month inventory they might be 10 per cent. With 'ABC analysis' the inventory of 'A' items could be one month and 'C' items three months. Three illustrative tables of figures are given.

CATERING, DIETETICS, KITCHENS

HOSPITAL CATERING

381. **Group purchasing brings meat costs . . . down.** *Hospital Forum*, Los Angeles, 1975, Nov., vol. 18, no. 8, pp. 4-7.

A scheme was developed in 1974 by the Hospital Council of Southern California dietary committee to obtain regular supplies of red meat for hospitals through group purchasing, at the cheapest price. Specifications were given to all meat buyers to enable them to know exactly what each hospital expected in the way of meat, and to provide hospitals with an accurate method of evaluating quality. The meat scheme provided the maximum flexibility for choosing suppliers, for 16 were selected who met the federal and state criteria, had financial stability, and could deliver. Each week the central purchasing department of the Hospital Council receives the meat prices for the following week, prices are quoted by the basic supplier who handles 25 per cent of the orders and compared with those quoted by other approved suppliers. The prices are distributed to all hospitals. The system encourages competition between sellers since only their 'best' prices are listed. Quality and service are important, all contracts are awarded on a 120-day trial basis which may be cancelled. A meat consultant visits hospitals and meat wholesalers to check on the quality of the meat. Many savings have been made through this system; the dietary committee now include eggs, poultry, juices, bread and fresh produce in the scheme. There are more than 75 hospitals, totalling 12,500 beds, represented.

382. KINCAID, J. W. **Patients evaluate cycle menu entrées.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 71-73.

A method of measuring patient acceptance of entrées in a cycle menu was designed and tested in Ohio State University Hospitals, Columbus. A study was made of the regular diet to assess patient acceptance of 20 entrées served on 10 successive days. About 300 of the hospital's 900 patients were on regular diet and it was assumed that the preferences of those on modified diets would be similar to those on regular diet. In the 10-day study a sample was taken of patients on obstetric, medical and surgical floors. Patients were asked to complete a questionnaire on their luncheon trays each day and there was a space on the form for additional comments. The questionnaire used is reproduced in the paper and a table shows the daily breakdown of patients selecting entrées. Entrées must of course be evaluated in relation to the alternative offered at the same meal. The study was easy and cheap to administer and caused a

minimum of disruption. Patients' comments on the temperature of food led to the improvement of the pellet heating system and efforts were made to correct other problems revealed by the questionnaire.

DIETETICS IN THE HOSPITAL

383 ZAJKÁS, G. Az egységes diétás rendszer jelentosége a betegellátásban. **[The importance of a uniform dietetic system in patient care.]** *Egészségügyi Gazdasági Szemle*, Budapest, 1975, Sept., vol. 13, no. 3, pp. 360-365; summaries in Russian, English and German p. 366.

A survey of eight hospitals in Budapest showed that 30 to 40 per cent of food served to patients is wasted. Although this waste is mainly due to technical deficiencies in the catering service, which cannot be rectified easily and quickly, the role of dietetics in the problem is also important. A properly planned dietetic system may make a considerable contribution to other treatment. In the author's opinion, the dietetic system can be divided into six groups: (i) variations by dietetic component; (ii) variations according to method of food preparation; (iii) artificial feeding; (iv) special diets; (v) diagnostic diets; and (vi) diets completing medication. It is estimated that (i) and (ii) may cover the catering for 80 to 90 per cent of patients. [This abstract has been prepared from an English summary of the paper.]

LAUNDRIES AND LINEN SERVICE

LAUNDRIES

See also Abstract No. 327

384. PIAU, G. L'opération buanderie-lingerie du centre hospitalier de Vichy. **[Laundry and linen services at Vichy Hospital Centre.]** *Techniques Hospitalières*, Paris, 1975, Dec., vol. 31, no. 363, pp. 77-82.

The author discusses the various options which were open to the authorities when the laundry and linen services building at Vichy Hospital Centre became increasingly unable to cope with the amount of laundry. It was finally decided to construct a new building and finance it by a hire purchase agreement with a private company. The new laundry is of industrial construction and has an area of 600 sq.m.; it is linked to a building of traditional construction which houses the offices, cloakrooms, etc. There are two front-loading washing machines, each with a maximum capacity of 200 kg. dry weight, a small machine for delicate fabrics, two driers, one of which dries fully the linen which requires no ironing, and a drier-ironer fitted with a automatic folder. The terms of the hire purchase contract are reproduced in full.

385. LUECHAUER, L. F. **New trends in laundering can create hygienic risks.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 83-84.

Pressures to save fuel, water or chemicals may lead to new laundering methods which could be very hazardous to patients. Some companies sell liquid supplies that

are measured and added automatically to the washload; but for hospitals clean looking linen is not good enough, the amount of chemicals added must be sufficient to decontaminate the washing properly. Some suppliers may suggest drying as a means of killing bacteria but this is not satisfactory for all pathogens. When new methods are proposed there must be some test for comparing the intensity of old and new formulas. It must also be possible to detect residuals, such as unrinsed bleach or soap, in the cloth. An oxygen bleach such as perborate will eliminate heat-resistant spores. If washing is done within the hospital, points which laundry managers should check up on are: possible iron build-up in the fabric which can damage and discolour it; the proper way to wash new fabrics; keeping pure cotton and polyester cotton items separate in the wash; and the absorbency of linens. If an outside service is used it is important to know: whether the laundering process is likely to be altered in any way which might involve hygienic risks; if a water re-use system is contemplated; if improperly rinsed residuals are being left in the linen; and whether the laundry uses a reliable test method to achieve the best balance between soil or stain removal and hygienic cleanliness.

HYGIENE IN THE HOSPITAL

HOSPITAL INFECTIONS

386. STEWART, C. J. **Tuberculosis infection in a paediatric department.** *British Medical Journal*, London, 1976, Jan. 3, vol. i, pp. 30-32.

Sputum-positive tuberculosis was diagnosed in a member of the medical staff of the baby care unit in a children's department, in which he had been employed for five months. Four children were infected, all suffering from debilitating diseases; three of them had evidence of pulmonary tuberculosis. The 82 infants who had been through the baby care unit during the eight weeks before diagnosis were given insurance isoniazid treatment; none developed tuberculosis. Whereas nearly all the non-medical adult contacts were traced and examined, only half the medical contacts attended for chest radiotherapy.

SOURCES OF INFECTION

See Abstract No. 385

PREVENTION AND CONTROL

See also Abstract Nos. 331, 340

387. MUNSTER, A. W. **Combating hospital infections: new concepts for the '70s.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 85-86, 88-89.

The rate of hospital infections has not decreased over the past 30 or 40 years despite new techniques and the introduction of antibiotics. The type of organism has changed and the cost in terms of mortality, morbidity and economics can no longer be disregarded. Recent studies have upset many long-held opinions about infection and the new aspects can best be discussed in three general areas: the emergence of Gram-

negative pathogens as the main culprits; the relative importance of airborne and contact contamination; and the realization that the relationship between the pathogen and the host is a delicate balance in which the host may play as important a part as the pathogen. An analysis of factors influencing post-operative wound infections indicated five which were aetiologically important: (i) a 'dirty' rather than a 'clean' case; (ii) the presence of bacteria in the wound at the end of the procedure; (iii) the age of the patient; (iv) the duration of the procedure; and (v) the type of ward. The modern infection control committee must consider among other things the disinfection of sinks, equipment and floors, the degree of isolation techniques and possible infection of tap water. The committee should consist of individuals representing engineering, housekeeping, medical and nursing disciplines and should be run by someone who is genuinely interested in the problem. It should regularly collect data and should be ready to act quickly if an epidemic threatens. A figure for infections of less than five per cent of patients should be aimed at, preferably not more than two per cent.

HYGIENE IN THE OPERATING THEATRE

See Abstract No. 403

STERILIZATION

388. UNITED STATES. FOOD AND DRUG ADMINISTRATION. **FDA issues guidelines for ETO sterilization.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 81-82.

Ethylene oxide (ETO) and gaseous mixtures containing ETO are being used increasingly for sterilizing items for which steam sterilization is unsuitable. Excessive residual amounts of ETO or its by-products may be harmful to patients and staff, possibly resulting in burns or irritation to the skin or mucous membranes. Guidelines for the protection of staff and patients, issued by the United States Food and Drug Administration include: (i) equipment to be sterilized by ETO should be cleaned thoroughly and wiped or air dried before sterilization in order to inhibit the formation of ethylene glycol; (ii) materials in which the product is packed for sterilization must be highly permeable to the sterilizing gases and diluents; (iii) instructions on the sterilization cycle provided by the manufacturer must be followed closely; (iv) biological indicators should be used to verify the adequacy of every sterilization cycle; (v) adequate aeration following ETO sterilization is essential; (vi) acceptable limits for residual contaminants must be adhered to; and (vii) all sterilized devices should be stored in well-ventilated areas to protect them from extremes of temperature and humidity. Tables in the text set out the recommended aeration time for different products and acceptable contamination limits.

AIR HYGIENE

See Abstract Nos. 331, 402, 404

DISPOSAL OF WASTE

See Abstract No. 327

SAFETY MEASURES

ACCIDENTS, GENERALLY

389. CASTELLARIN, G. and NADAL, I. Analisi statistica e valutativa degli infortuni nel personale ospedaliero. **[Statistical analysis and evaluation of accidents to hospital staff.]** *Ospedale*, Torino, 1975, Nov., vol. 28, no. 11, pp. 294-300.

Accidents to hospital staff in Verona during the period 1968 to 1972 were analysed. Accidents occurred most frequently among staff in the 20 to 30 age group, in their first or second year of employment in the hospital, and between 0800 and midday. More accidents happened on Mondays and on Wednesdays than on other days of the week. Unskilled staff were involved more often than were nurses or technical staff. The incidence of accidents was more than eight per cent. The authors propose a psychological explanation for some of these findings.

CIVIL DEFENCE IN THE HOSPITAL

390. FORSSBECK, B. Personal- och utbildningsfrågor för hälso- och sjukvården i krig bör drivas med kraft redan i fred. **[Staffing and training questions for wartime health and hospital care should be actively pursued in peacetime.]** *Landstingens Tidskrift*, Stockholm, 1975, Nov., vol. 62, no. 13, pp. 48-49.

In the event of war, conscript manpower will be placed at the disposal of the military and civil health services. Responsibility for the health services in wartime is divided between the Social Security Department (doctors, dentists, medical officers of health, physiotherapists, nurses and midwives) and the hospital administration (dental nurses, nursing aides and laboratory assistants). The more highly qualified the person, the more carefully he must be placed. This requires continual consultation and training, so that hospital staff at all times know who will be posted where. The Social Security Department runs training courses in military medicine for medical staff and administrators; the State thus maintains a pool of people able to assist in any emergency situation (train crashes, etc.). Suggested training programmes at local level include emergency exercises, and round table studies of hospital organization in wartime. A diagram illustrates the wartime placing of medical staff.

THE PATIENT

ADMISSION AND RECEPTION

391. CROMPTON, G. K. and GRANT, I. W. B. **Edinburgh emergency asthma admission service.** *British Medical Journal*, London, 1975, Dec. 20, vol. iv, pp. 680-682.

In December 1968 an emergency service was set up in Edinburgh to enable patients with severe asthma to be admitted without delay to the respiratory intensive care unit of the Northern General Hospital. All patients under the care of the unit were put on

an 'emergency list' and were admitted immediately whatever the bed state of the unit. Copies of the emergency list are kept at the area health board, the emergency bed bureau, the ambulance control and in key hospital areas to enable requests from patients to be dealt with immediately and the unit to be notified of their arrival. The total number of patients on the 'emergency list' in 1975 was 82, of which 45 were female and 37 male. To ensure efficient running of the service strict criteria for admission are set, and the lists are reviewed each year. Patients who have not been unduly troubled by their asthma for two to three years are removed from the list. The system has functioned well for seven years and the results justify its continuation. Many hospitals in Britain could organize a similar service with their existing facilities.

WELFARE OF THE PATIENT

See also Abstract Nos. 434, 435, 449

392. HALL, D. and PILL, R. **Social climate and ward atmosphere.** *Social Science & Medicine*, Oxford, 1975, Oct., vol. 9, no. 10, pp. 529-534.

Using several hospital wards as the foundation for research, the relationship between the individual patient and his environment was studied under the headings of social climate or atmosphere. The suitability and usefulness of the social climate as a tool for research with reference to medical literature was assessed through three approaches: (i) evaluative criteria of individual patients; (ii) quantitative analysis of environment by a checklist of variables; and (iii) quantitative analysis by large-scale questionnaire response. An approach that will give due weight to both the differences of perception of the individual and also link the structural features of the individual's social position is called for; at present there is no link between the subjective and objective analysis of the environment. Various solutions to the problem are suggested.

393. LAYCOCK, E. **No smoking in patient rooms—please!** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 45-46.

Scarborough Centenary Hospital, Toronto, has introduced a 'no smoking' policy. Four restrictions are: (i) patients are not allowed to smoke in their rooms unless they are confined to their bed for a considerable length of time; (ii) visitors and doctors are not allowed to smoke in patients' rooms at any time; (iii) visitors and patients may only smoke in the lounge areas; and (iv) staff may only smoke in the private offices, the lunch room and lounges provided for their own use. The results have led to a decrease in fire accidents, the elimination of requests for patients to be transferred as a result of smoking incompatibility, and an increase in the number of patients who wish to get up and move about more quickly. In order to implement the policy: 10 areas within the hospital were selected to advertise the 'no smoking' policy, with posters; letters were sent to clubs in the area; local newspapers were contacted; a policy statement was given to each patient on admission; and responsibility for maintaining the policy was assumed by all staff. The scheme appears to be successful, for in a survey of 130 patients selected at random 84 per cent agreed with the policy, although only 62 per cent were non-smokers. There is now a move to eliminate smoking from all private offices and conference rooms.

394. GREEN, W. **Hospital library services and music.** *New Zealand Libraries*, Wellington, 1975, Aug., vol. 38, no. 4, pp. 209-217.

The therapeutic value of music is outlined, together with examples of its use in psychiatric hospitals in New Zealand. A hospital library service providing a music listening service for patients, and dealing with all forms of music from classical to modern is advocated, and should be administered in conjunction with the book service, using cassettes. The use of cassettes presents a more flexible medium for the presentation of music, musical information, drama and poetry to the patient than armfuls of books and records. Guidance on the practical considerations of administering and operating such a scheme is given, together with an example of an experiment in music therapy in the Otago hospitals.

HOSPITAL SOCIAL WORK

See Abstract No. 440

TRANSPORT OF PATIENTS

See also Abstract No. 432

395. Rettungshubschrauber: Einsatz, Aufgaben, Kostendeckung. **[Rescue helicopters: their purpose, duties and costs.]** *Fortschritte der Medizin*, München, 1975, Oct. 16, vol. 93, no. 29, pp. 1367-1368, 1378.

The rescue helicopter is not a substitute service but a useful and necessary extension of normal emergency measures. Its main duties are as follows: speedy transport of a doctor and first aid assistant to the site of the emergency and preparation of the patient for transport; transport of the patient under supervision to a suitable hospital; movement of patient to another hospital after preliminary treatment; the transport of drugs, blood, transplant organs, or medical equipment; and searching inaccessible terrain. Helicopters should be based on a large central hospital (roof landing pads are best) and can cover a radius of from 50 to 70 km. A list of towns in West Germany supplying such a service is given. The total annual cost of running a helicopter, including the services of a doctor and first aid assistant, is about DM600,000. Details are included of the type of helicopter best suited to the purpose.

HOSPITAL CARE

See also Abstract No. 369

396. GERSON, L. W. **The incidence of pressure sores in active treatment hospitals.** *International Journal of Nursing Studies*, Oxford, 1975, vol. 12, no. 4, pp. 201-204.

Over four months a daily study of nursing care was carried out in three St. John's, Newfoundland, general hospitals. The incidence rate for the development of pressure sores in 5,648 patients was 2.69 per cent. The average age of the patients in the study was 49.5 years, whereas the average age of the patients who developed decubiti was 67.6 years. Male and female patients developed decubiti with equal frequency. The patients who developed ulcers were those for whom acute treatment was not needed:

terminal cancer patients, those with cardiovascular accidents and those convalescing from fractured femurs. These patients require basic nursing techniques and run the double risk for the hospital: (i) they are occupying beds needed for acutely ill patients; and (ii) they are more likely to develop pressure sores which will further add to their length of stay. If these patients were removed to another setting, e.g. home care, convalescent home, or a unit equipped for treating and preventing pressure sores, the problem could be partly eliminated.

397. PRESTON, G. Les soins individualisés sont-ils réalisables? **[Is individualized patient care feasible?]** *Infirmière Canadienne*, Ottawa, 1975, Oct., vol. 17, no. 10, pp. 11-14.

The nature of individual patient care is discussed. At its basis lies the establishment of genuine nurse-patient and nurse-patient-family relationships. Obstacles to individual care include the brevity of the patient's stay in hospital, routine, the staff rota system, the nurse's administrative and 'domestic' duties, and her need to concentrate on the apparatus which she is monitoring (artificial kidney, Mayo respirator, etc.) rather than on the patient. Nevertheless, individual care is possible where concern for the patient as a human being over-rides all other considerations.

398. BUREAU, J. Étude de côut de la fixation des pansements. **[A study of the cost of affixing dressings.]** *Techniques Hospitalières*, Paris, 1975, Dec., vol. 31, no. 363, pp. 72-74.

A comparison was made between the costs of various types of dressing—microporous adhesive plasters, conventional adhesive plasters, and hypo-allergic plaster (Elastoplast). The costs of cleaning and preparing the patient's skin and of affixing the dressing were added to the price of the dressing itself. Although the price of adhesive plasters with a copolymer acrylic base was slightly higher than that of the conventional plasters, their total cost was 20 to 25 per cent less. They were also more comfortable for the patient than the traditional plasters.

399. MARTEL, R. and LATOUCHE, F. L'implantation du contrôle statistique de la qualité des soins. **[The use of statistical control in the quality of care.]** *Infirmière Canadienne*, Ottawa, 1975, Nov., vol. 17, no. 11, pp. 18-22.

After a first attempt to evaluate the quality of nursing care at Holy Sacrament Hospital, Quebec, the authors sought the assistance of the Centre for Scientific Business Organization. The latter recommended a statistical evaluation of nursing procedures by random sampling and a system of demerit marks. The quality of care received by the patient, and not the performance of the individual nurse, was evaluated. A 'quality quota' for each department was displayed on a chart and monthly staff meetings discussed possible improvements. A block graph illustrates the improvement achieved in one area, namely the administration of medicines, over a period of 18 months.

400. PILON, D. A. Les différentes catégories d'erreurs dans un soin. **[Different categories of errors in nursing procedures.]** *Infirmière Canadienne*, Ottawa, 1975, Oct., vol. 17, no. 10, pp. 15-18.

Just as in industrial production, so in nursing care, errors can be critical, major,

minor, or harmless. Each category of error is defined and corrective action outlined. A critical error, for example, is one which may lead to a lawsuit, damage the hospital's reputation, cause it to lose its licence, injure the patient, or lead to errors of identification or serious complications. A major error may lead to a prolonged hospital stay for the patient or cause extra expenditure. Two classifications of criteria of care are described; the author favours that in which the criterion is based on the correct or incorrect carrying out of the individual procedure; he illustrates it with an account of the factors involved in patient safety. Errors in nursing care conform to Parieto's law which states that some errors occur more often than others.

HOME CARE, AFTER-CARE

See also Abstract Nos. 423, 450

401. CRANE, L. M. **Home care programs in British Columbia.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 28-29, 31.

Home care services in British Columbia are considered a vital aspect of the health service. Most areas in British Columbia received home care services provided by nurses working with doctors, social workers and ancilliary workers; isolated areas were not provided with such services. In 1971 the Minister of Health decided to extend health care with special projects on the feasibility of early discharge of acute patients from hospitals and the home care services needed; for the first time the government assumed full responsibility for payment of additional services. Selection of patients is based on an assessment of the patients' needs and home environment. A 'hospital replacement' scheme such as this requires professional nursing care in the home; in 1974 over half the patients received medication and supplies, and 14 per cent needed physiotherapy and home help services. There is need for a research project to examine the scheme in depth. A home care scheme needs good organization and complete co-ordination of all services to make it function adequately and efficiently.

SPECIAL DEPARTMENTS

OPERATING SUITES

402. NICHOLSON, J. A., SADA, T. and ALDRETE, J. A. **Residual halothane: patient and personnel exposure.** *Anesthesia and Analgesia: Current Researches*, Cleveland, 1975, Aug./Sept., vol. 54, no. 4, pp. 449-454.

This paper reports: (i) halothane concentrations found in the operating suites of two separate hospitals on 12 days; (ii) the residual amount of halothane found in anaesthetic apparatus after using it for one hour; and (ii) the amount of halothane in the blood of a group of surgical patients anaesthetized with agents other than halothane, but from a machine that had been recently used to administer halothane. Except in a few instances, there was an increased concentration of halothane at noon, in comparison with the samples taken at 0700 in the operating theatres; slight traces of halothane

were found in the anaesthetic machine and in the 12 patients on non-halothane anaesthesia. Although the results were low the data supports the view that surgery and recovery room staff are continuously exposed to low levels of halothane.

403. STRINDEHAG, O. Operationsbox för förbättrad operationsrumsstandard. **[Operating enclosures promote improved operating theatre standards.]** *Läkartidningen*, Stockholm, 1975, vol. 75, no. 42, pp. 4035-4036.

In 1969, Charnley & Eftekhar reported significantly low frequencies of infection in hip joint operations in association with the use of operating enclosures, one per cent or less, compared with five to 10 per cent at normal operations. The author's firm supplies an operating enclosure suitable for installation in new or existing operating theatres, and already in action in Lund Hospital. In a conventional operating enclosure, filtered air is supplied from the ceiling or walls via the principle of laminar air flow: the noise levels are usually described as unsatisfactory. The new enclosure described meets the following requirements: simple to install, high reliability, satisfactory distribution of air, high-grade air filtration, low noise, and room for a closed-circuit X-ray television unit. The price of such an enclosure is between s.kr. 100,000 and 300,000 depending on its size and the site of installation. The paper is illustrated with a diagram of a conventional unit, a three-dimensional diagram of the improved filter system, and a noise level chart of the new enclosure.

404. NOVELLI, G. P., MELICONI, F. and PEDUTO, V. A. L'inquinamento ambientale delle sale operatorie da parte di gas e vapori anestetici. Mezzi di disinquinamento e misure protezionistiche proponibili. **[Contamination of air in operating theatres by anaesthetic gases and vapours: possible methods of decontamination and protective measures.]** *Ospedale*, Torino, 1975, Nov., vol. 28, no. 11, pp. 275-293.

The authors review the international literature on the potential risks of chronic exposure to anaesthetic gases and vapours. They present statistics on the incidence of spontaneous abortion among staff and the wives of staff in operating theatres, and of congenital anomalies in their children. The incidence of malignant neoplasia, leukaemia, and lymphoma is higher among theatre staff than in the general population. There are tables which detail the volume of anaesthetics in the atmosphere of the recovery room, of nitrous oxide, methoxifluorane, and halothane in the air in the theatre, and of anaesthetics in the venous blood and urine of theatre staff. Contamination cannot be entirely eliminated, but preventive measures such as the use of closed systems and good ventilation can reduce it to a minimum. Women in the stages of pregnancy should be barred from the theatre and no member of staff should spend more than four hours at a time in the theatre.

ANAESTHESIA

See also Abstract No. 441

405. WARD, C. S. **Anaesthetic equipment, physical principles and maintenance.** London, Baillière Tindall, 1975, xii, 282pp. £8.50

The aim of this book is to provide better understanding of the mechanical principles involved in anaesthetic apparatus and the more common causes of mechanical failure

and to present information on the regular inspection and maintenance of the equipment. There are also chapters on sterilization, hazards and their prevention, and the layout and contents of the anaesthetic room.

PHARMACY

See also Abstract Nos. 344, 358

406. ALENTA, H. P. La farmacia en el hospital. **[Pharmacy in the hospital.]** *Policlinica*, Barcelona, 1975, Sept./Oct., no. 29, pp. 67-68, 71-72.

Reasons for the growing importance of the hospital pharmacy and pharmacist are discussed. There should be at least two qualified pharmacists and, ideally, a clinical pharmacologist in every hospital. The pharmacist should supervise the distribution of drugs in unit doses so as to eliminate errors on the part of the nursing staff. He should have a register of each patient's drugs, both to facilitate stock control and to ensure that a patient does not receive a dangerous combination of drugs. A committee for pharmacy and therapeutics in each hospital should list all drugs in use, ensure that the pharmacy complies with the relevant parts of the health code, study the properties of new drugs, and indicate the best methods of dispensing and preserving drugs.

407. SIMON KIS, G., TOTH, B. and VAZINGER, A. Egészségügyi intézmények gyógyszerellátásának szervezete. **[Drug supply system for health care facilities.]** *Egészségügyi Gazdasági Szemle*, Budapest, 1975, Sept., vol. 13, no. 3, pp. 340-345; summaries in Russian, English and German p. 346.

The drug supply and distribution system in Hungary is described. Drugs are supplied on a national basis by Drug Sale Enterprise, a wholesale organization established in 1949. Pharmacy centres administered by county councils act as intermediaries between the wholesaler and public pharmacies as well as smaller health care facilities offering out-patient care. Hospitals and some other health care facilities have obtained their drugs from Drug Sale Enterprise since 1968; this has made it possible to treat more patients within existing financial limits. Further economies could be achieved if hospital pharmacies had, at least experimentally, extra staff who could: (i) give better information on new preparations and on less scarce substitute drugs; and (ii) by observing the shelf-life of drugs eliminate waste from this source. [This abstract has been prepared from an English summary of the paper.]

408. MAY, F. E., STEWART, R. B. and CLUFF, L. E. **Drug utilization in the hospital: an evaluation of drug costs.** *Drugs in Health Care*, Washington, D.C., 1975, vol. 2, no. 3, pp. 139-152.

Expenditure on drugs represents 11 per cent of the total health budget in the United States and the need to control drugs has been well recognized. Effective methods of controlling drug use can only be instituted after the factors influencing drug prescription and the drugs representing the highest costs have been discovered. A survey lasting 3½ years of 7,423 patients using a 65-bed ward was carried out to monitor adverse drug reactions and drug use; information was collected on every drug administered

to each patient. The data was processed onto computer tape and reports were produced every two months on the drug use. Nine index drug groups were selected to evaluate use and cost; analgesic, antacid, antiarrhythmic, antimicrobial, anticoagulant, antihypertensive, anti-inflammatory, diuretic and sedative tranquilizer drugs. Three of the nine groups (antimicrobial, anti-inflammatory and anticoagulant) accounted for 81 per cent of the cost of all index drugs. Analgesic, antiarrhythmic and sedative tranquilizer drug groups comprised the lowest average hospital cost per patient. Tables of data are included.

409. O'Byrne, A. K. and Turnbull, R. T. **Pricing system reflects specific costs and provides management data.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 61-62, 64.

Certain deficiencies in the pharmacy pricing system at the University of Chicago Hospitals and Clinics (UCH) led to a survey with a view to designing a new system. A 10 per cent sample of in-patient medication orders for three months was surveyed to determine the costs of goods sold and the return on sales. The drug description, the total charge per line and per order, the fee charged, the theoretical acquisition cost (TAC), the actual acquisition cost (AAC) and the price (rounded up according to a specific scale) were recorded for each order surveyed. Profit can be calculated according to an equation:

$$\text{Profit} = (\text{TC} - \text{TAC}) + (\text{TAC} - \text{AAC}) + \text{TPR}.$$

TC represents total charges and TPR the total of the price rounds. The method of using the data collected in the survey and the working out of mark-up and fees is described. The proposed system was tested by application to the pharmacy-generated statistics of a period later than the survey period. The purpose was to compare the revenue that would have been generated if the proposed system had been used with the actual total revenue generated during the same period. When comparing revenue from two different periods it is necessary to use figures that can properly be compared. The control figure for each period must be a ratio with a common base. At UCH this is the return on sales.

410. Smith, D. L. **Providing pharmacy service to ambulatory patients.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Nov./Dec., vol. 17, nos. 11/12, pp. 35-36, 38-39, 41.

Approximately 50 per cent of all out-patients take their medicines incorrectly or discontinue the treatment before the prescribed time. A scheme has been developed at the out-patient pharmacy, Sunnybrook Medical Centre, Toronto, to improve the situation and increase public relations between patients and hospital. Every patient is now advised by a pharmacist of: the correct times and methods for taking drugs; the general precautions that must be observed; the adverse reactions and the need to re-consult the doctor if they should occur; and instructions for storing and disposing of drugs. The patient is given a set of written instructions together with pamphlets on the pharmacy services. A drug history questionnaire and personal drug record are maintained by the pharmacy department. Technical functions, e.g. typing of the labels, have now been computerized. An evaluation of the scheme revealed that 93 per cent of patients expressed approval of the scheme and 60 per cent asked for further information. Clinical pharmacy is now successfully carried out in the out-patient department.

411. ROBERTS, K. B., HAIR, J. F. and GARNER, D. D. **Selecting a drug formulary committee using multivariate analysis.** *Drugs in Health Care*, Washington, D.C., 1975, vol. 2, no. 3, pp. 167-177.

The need for drug formulary committees has increased in America since 1965; each of the 50 states now has a Medicaid scheme, 44 of which include out-patient drug coverage; 19 states and the District of Columbia have drug formularies. The objectives of this study were to identify the medical specialties which should be selected as members of drug formulary committees, taking prescribing patterns as the basis for the selection, instead of arbitrarily designating members, as previously happened. Drug prescribing patterns were defined by the variables, frequency of use and average quantity prescribed for a given drug. Factor analysis was selected to reduce and summarize the information and the factors were as follows: (i) primary specialty/frequency; (ii) primary specialty/quantity; (iii) eye, ear, nose and throat; (iv) psychiatry; (v) dermatology/pediatrics; and (vi) urology. The six factors accounted for nearly 67 per cent of the total variance. The following medical specialties were selected to be represented on the drug formulary committee: general practice, dermatology, psychiatry, urology and either opthalmology or otolaryngology. Identification of the relevant groups reduces the size of the committee but provides adequate representation of all medical specialties. The research emphasizes that there are differences in prescribing patterns among medical specialists; knowledge of these differences together with the similarities among the specialties will help the drug formulary committees to meet the needs of patients more effectively.

412. BLANIE, P. Un garde-fou pour la prescription des médicaments. **[A fool-proof method of preventing prescription errors.]** *Techniques Hospitalières*, Paris, 1975, Nov., vol. 31, no. 362, pp. 74-75.

A new system called 'Films' which provides comprehensive information on proprietary drugs has been devised by a French pharmacist. It enables an immediate checking of doctors' prescriptions and shows the effects of each proprietary medicine and of all combinations of them included in the prescription. This 'pocket computer' contains information on 2,400 active constituents in the composition of 4,000 specialized formulas being sold in 12,000 different variants on the French market. In this system the transparent superimposable cards provide, in the form of special symbols, information on active constituents of the proprietary drug, interactions, side effects, contra-indications, precautions in use, etc. The cards are inserted into a stiff frame containing legal information and an explanation of the symbols; a plastic card ensures exact superimposition of the cards. The system also includes a classified index consisting of about 100 cards.

413. TOURVILLE, J. F. and MCLEOD, D. C. **Comparison of the clinical utility of four drug information services.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1153-1158.

The comparative value of four drug information services in providing data in response to various requests for drug information is assessed. *International Pharmaceutical Abstracts*, *Iowa Drug Information Service*, de Haen *Drugs in Use*, and de Haen *Drugs in Research* were compared using representative questions from five basic areas:

(i) general information on new drugs; (ii) comparative efficacy studies; (iii) adverse drug reactions; (iv) biopharmaceutics and pharmacokinetics; and (v) toxicology. *Iowa Drug Information Service* appeared to be of most use for clinical information, the two de Haen services had a broad coverage of the primary clinical literature and *International Pharmaceutical Abstracts* provided an effective method of locating many references for those with less financial resources or a smaller library. The four services are effective in use. The individual features of each are summarized.

414. SIMON, W. A. and others. **Drug usage review and inventory analysis in promoting rational parenteral cephalosporin therapy.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1116-1121.

The pharmacy of Shands Teaching Hospital, University of Florida, Gainesville, presented to the pharmacy and therapeutics committee a drug use review and inventory analysis data on cephalosporin antibiotics. This information was evaluated by a sub-committee in an attempt to reduce drug costs and to promote rational use of drugs. The committee recommended that cefazolin should be the parenteral cephalosporin of choice. Cephalothin was placed on a limited formulary basis for ophthalmology patients and patients with renal impairment. The committee felt that the cephalosporins were being over used and that penicillin and its derivatives should be used for susceptible staphylococcal infections. The study indicated that data compiled by the pharmacy can be useful in promoting rational drug therapy.

415. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGSINSTITUT. Patient rapport system: administrativt system för registrering av ordinationer av läkemedel mm. **[Patient report system: administrative system for recording prescriptions.]** (Spri råd 4.5) Stockholm, Spri, 1975, 81pp.

The objective of this study was to develop a system to satisfy demands for accuracy and ease of handling. The system was to cover the routines embracing the physician's prescription and the nurse's registration of it and was to include forms, routines and office aids and equipment. The system described is largely applicable to all types of hospital wards, but modifications for certain specialties are suggested. The various instructions for operating the system are included as appendices. [This abstract has been prepared from an English summary of the report.]

416. MCDANIEL, H. A. **Development of a computer-based controlled substances reporting system.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1175-1177.

Record keeping procedures for controlled drugs at Indian River Memorial Hospital, Vero Beach, Fla., were traditional up to 1974. Control was maintained using a master book serving as an inventory for Schedule II drugs. Construction of a new hospital building resulted in the decision to use unit dose dispensing. An automatic accounting system was developed so that a daily printout of all drugs dispensed and the quantities prescribed can be produced together with costs, which aids purchasing decisions and can give up-to-date details of the costs for the patient. Controlled drug distribution reporting is carried out by computer, producing daily and monthly printout lists of the drugs, together with the name of the patient and the number of doses received.

Monthly reports are maintained for two years, and the only drugs dispensed that do not appear on the printout are those dispensed as out-patient prescriptions to hospital staff, as these appear in the prescription files. The system is accurate and may be used for drugs dispensed both as unit doses and from floor stock. Information is readily accessible; no direct staff time in the pharmacy is involved in maintaining the system as it is a by-product of the posting and accounting system.

417. BATTY, G. R. **The dilemma of the unit-dose pharmacy system.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Nov./Dec., vol. 17, nos. 11/12, pp. 49-50.

The question of whether to implement a unit dose pharmacy system in a hospital is studied. There are three aspects common to all planning procedures for unit dose systems: (i) cost considerations, e.g., staffing, equipment, supplies and space; (ii) benefits of reduced medication errors and tighter control over drug flow in and out of the hospital; and (iii) variable factors which may influence the implementation of the unit dose scheme at any time. The advantages and disadvantages of the system are given.

418. MAYO, C. E. and others. **Distribution accuracy of a decentralized unit dose system.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1124-1126.

The Department of Pharmaceutical Services, Medical University of South Carolina Hospital, provides a complete pharmacy service on a decentralized basis, with three satellite bases in addition to a central department. Unit doses were monitored for accuracy and completeness after delivery to the ward from the pharmacy and six specific categories of distribution errors were revealed: (i) lost request for drugs; (ii) request received by pharmacy but not transcribed to the patient's drug profile; (iii) pharmacy technician's error not noticed by the pharmacist; (iv) error in transcribing requests onto the pharmacy profile; (v) pharmacist's error; and (vi) no standing request for drugs. Greater communication is needed between the pharmacy and the nursing areas to lessen the number of mistakes; more intensive training schemes for pharmacy technicians are required together with more thorough checking of requests and other work by pharmacists in order to improve the system.

419. WARREN, D. E. **Respiratory therapy unit dose medication distribution.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1127-1130.

St. Lawrence Hospital, Lansing, Mich., has set up a unit dose system for the delivery of respiratory therapy medications to replace the existing system which was open to great abuse and had too many faults. One unit dose trolley, containing respiratory therapy drugs for each patient and equipment, is used on each floor. Syringes are filled by the pharmacy for unit dose use. The packaging and special procedures are discussed together with the cost factors. Although time spent in administering the system by pharmacists has increased there are savings on new materials and drugs. The possibility of contamination, error and abuse of the system has been abolished, and has resulted in improved patient care.

420. SCHNELL, B. R. and others. **The cost of operating a computer-assisted unit-dose drug distribution system.** *Canadian Journal of Hospital Pharmacy*, Saskatoon, 1975, Sept./Oct., vol. 28, no. 5, pp. 149-153.

University Hospital, Saskatoon, was the first hospital in Canada to have a system of unit dose drug distribution using a computer; a cost analysis of the system was considered of benefit both to the hospital and to other hospitals considering implementing the scheme. There were three objectives: (i) to determine the total cost of producing and administering a unit dose on each of seven nursing wards between 1 April and 30 June 1974; (ii) to determine the total cost per patient day of operating the drug distribution system on each of the seven wards; and (iii) to compare the total cost per dose on four of the nursing wards with those of an earlier survey conducted in 1970 on the same wards. The methodology is given. The results show that the total cost per dose is inversely related to the number of doses administered per patient day. The limitations of the method are outlined, together with the proviso that when considering the results in absolute terms it should be remembered that costs can vary with the methodology used.

421. PANG, F. and GRANT, J. A. **Missing medications associated with centralized unit dose dispensing.** *American Journal of Hospital Pharmacy*, Washington, 1975, Nov., vol. 32, no. 11, pp. 1121-1123.

The distribution of drugs in Porter Memorial Hospital, Denver, Colo., depends upon the messenger service or nursing staff. A survey of drugs from unit dose trolleys revealed that 12 drugs per day were missing, due to the following reasons: (i) insufficient or incorrect drugs dispensed by the pharmacy; (ii) differences in interpretations of orders by pharmacists and nurses; (iii) administration of extra drugs or incorrect doses; (iv) waste of drugs; (v) administration of drugs to patients other than those for whom they were ordered: (vi) delivery to the wrong ward; (vii) theft; and (viii) requests by nurses for drugs before the orders were received by the pharmacy. New procedures were implemented for checking medicines and the incidence of missing drugs has been reduced by 60 per cent. Various recommendations for in-service training to improve communications between nursing and pharmacy staff and to prevent missing drugs in this system are presented.

LABORATORIES

422. MUSSER, A. W. **The planning, operation, and function of a clinical laboratory in a teaching hospital.** *CRC Critical Reviews in Clinical Laboratory Sciences*, Cleveland, 1975, July, vol. 6, no. 1, pp. 47-66.

The clinical laboratory is introduced as a viable part of the teaching hospital. The development of the laboratory and its place in the hospital are explained. The basic functions and aspects of the laboratory, together with the importance of planning and the methods of financing the clinical laboratory are outlined. The role of the laboratory is of great importance to the teaching hospital, and future developments are highlighted. The author sees the central clinical laboratory as a regional laboratory organized by professional medical staff. The advantages of the system will be to: (i) solve logistics and the need for intermediate level laboratories; (ii) solve complexities

of funding problems; (iii) make cost-effective use of research funds; (iv) develop a quality assurance scheme based on a relevant assessment of the situation; and (v) provide a data base to develop evaluative studies. There is much to be done in order to produce such a development.

RADIOTHERAPY DEPARTMENT

423. PHILLIPS, D. F. **Recalling former patients: weighing the risks.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 85-88.

Irradiation treatment of benign conditions of the head and neck was common between the 1930s and 1960s but recently a link between the irradiation procedure and thyroid cancer has been reported. As a result hospitals and doctors in the United States have been encouraged to develop screening programmes to trace people who may be at risk because of such treatment. A number of local communities which have initiated screening procedures and educational programmes have encountered a variety of problems. These include the difficulty of finding the patients and their medical records; the risk that a programme might cause panic among former patients or lead to malpractice claims against those who provided the treatment; and the lack of staff, time and money to carry out the screening. A successful programme has been carried out in Milwaukee where the media have co-operated well with hospitals and doctors. The most extensive campaign has been in Illinois where the state medical society and the state hospital association in co-operation with the Illinois Department of Public Health developed a state wide educational programme and instituted thyroid screening. The problem of thyroid cancer caused by irradiation will pass as the procedures involved are no longer accepted, but there are two current procedures which may lead to similar concern. These are: X-ray therapy on teenagers for lymphoid hyperplasia and acne and the link between vaginal adenocarcinoma in young women whose mothers have been treated with diethylstilbestrol.

RADIOISOTOPE DEPARTMENT

424 BRITISH INSTITUTE OF RADIOLOGY. **Guidelines for the preparation of radiopharmaceuticals in hospitals: a report of a working party.** (Special Report No. 11) London, British Institute of Radiology, 1975, 50pp. £2.00

These guidelines are concerned entirely with the basic facilities and procedures considered for the safety of patients and staff; they do not include recipes for the preparation of particular radiopharmaceuticals. Following an introduction, there are chapters on: laboratory facilities; introduction of new radiopharmaceuticals into routine use; working procedures; physical, chemical and pharmaceutical quality control; radionuclide generators; and radiopharmaceutical records. A list of 40 references to the literature is included.

DEPARTMENTS FOR SPECIAL THERAPY

See Abstract No. 338

INTENSIVE CARE UNITS

See also Abstract No. 391

425. GREENBURG, A. G. and others. **Computerization of the surgical intensive care unit: improvement of patient care via education.** *Surgery*, St. Louis, 1975, June, vol. 77, no. 6, pp. 799-806.

An evaluation of a computerized patient monitoring system used in the surgical intensive care unit of the Veterans Administration Hospital and the University of California revealed a great potential for improvement in its use. The evaluation was to identify strengths and weaknesses in the monitoring system, but the results showed that the output of the system was ignored because the decision maker was unable or unwilling to integrate the more sophisticated information presented to him into the system. In an attempt to reverse the situation, a multilevel, educational system for all staff using the computer has been developed. The system was re-evaluated after the training schemes had been carried out and a greater use of the computer was discovered. The staff is now more competent, more able to deal with sophisticated information and can make better decisions. The full potential of the system can only be realized through educating the users.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 317, 410, 436, 441

426. ULLMAN, R. and others. **Study provides data for planning hospital-based primary care.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 75, 77-78, 80.

Although many people use hospitals as a source of primary medical care the fragmented nature of the traditional structure of out-patient services means that the patient does not have a continuing relationship with a single provider. To design a new hospital primary care programme planners must know something about the current primary care population—its size, characteristics and patterns of use. This information is not easily available and a study is described which was undertaken for Genesee Hospital, Rochester, N.Y., to identify the primary care population. This involved a sampling technique dependent on two sources of data: a list, such as a logbook or billing summary of visits made during a given period, and a unit medical record of all services rendered to a given patient. The methods used documented use patterns and indicated the distribution of patients by socio-demographic characteristics. It was also possible to identify patients who used more than one clinic. Primary care population consists of patients who use the hospital as a regular source of out-patient care and of those who can be managed by general practitioners or specialists in paediatrics, internal medicine or obstetrics and gynaecology. Tables in the text illustrate findings from the study including use frequencies of a diabetic clinic, estimated primary care population and estimated use of services by the primary care population.

427. RANNELS, H. W. and others. **The community hospital and regional health care responsibilities—how to do it!** *Medical Care*, Philadelphia, 1975, Nov., vol. 13, no. 11, pp. 885-896.

Primary care for under-served areas can be provided through various sources; the major source being developed in Pennsylvania is the primary care centre. Williamsport (Pa.) Hospital has recognized that it has central responsibility for providing health care in the surrounding rural area and under hospital guidance the North Penn Comprehensive Health Care Services has been developed. The development of a centre has to be considered in the light of seven factors: (i) services to be offered; (ii) under what auspices the centre will be run; (iii) procurement of manpower; (iv) size of the service area; (v) whether it will be self-sufficient; (vi) whether the need is recognized by the community; and (vii) the interrelationship between other areas and organizations. The hospital provided help in seven areas: (i) community organization; (ii) project planning; (iii) administrative and fiscal support; (iv) medical staff development and recruitment; (v) grant application and management; (vi) publicity; and (vii) security and facilities management. Blossburg Primary Care Center opened in 1973; in 1974 a second centre was opened at Mansfield, and a third in 1975 at Elkland. The system of primary care must have adequate support from the secondary care system and should be linked for education, referral, services and recruitment purposes, without being dominated.

428. VIGGIANI, A. Ipotesi di assetto territoriale dei servizi: ambulatoriali poliambulatoriali. **[Hypothesis on the territorial arrangement of services: ambulatory and polyclinic.]** *Ospedale*, Torino, 1975, Dec., vol. 28, no. 12, pp. 312-314.

An Italian law of 1969 decreed that all hospitals should provide out-patient clinics which 'should be used for post-hospital attendance of discharged patients' and be 'instruments for the protection of the health of the citizen . . .'. The author suggests that in each region the authorities should establish peripheral clinics in those towns which have no hospital but which are natural centres of attraction for the population of the surrounding area. Specialists in general medicine, surgery, obstetrics, gynaecology, and paediatrics should attend and there might be a small laboratory and possibly an X-ray department. The general zonal hospitals should have out-patient clinics for the principal medical and surgical specialties, the provincial hospital should have as many out-patient clinics as it has departments, and finally, the regional hospital should provide more specialized clinics as well as sterility clinics, rehabilitation centres, etc. Each clinic should have the necessary nursing staff and social workers, and an efficient medical record system.

429. SIBOLE, W. R. **Developing methodologies for the regional/institutional programming of ambulatory care facilities.** *Hospital Administration in Canada*, Don Mills, Ont., 1975, Oct., vol. 17, no. 10, pp. 39-40.

The problems of determining the total amount of ambulatory care facilities for a region, the categories of care that can or should be offered, the distribution of such facilities on a regional basis, together with the problems concerning those services administered by a hospital, are discussed. A methodology for evaluating these problems is given, together with examples using a hypothetical hospital service.

430. HEALTH CARE MANAGEMENT SYSTEMS INC. **Selected bibliography and abstracts for ambulatory health care computer applications.** Ann Arbor, Mich., Health Administration Press, 1975, x, 308pp. $10.00

This publication is a result of the literature search carried out under a grant for a project entitled 'Ambulatory health care computer applications: a follow-up survey with references for future development'. It is arranged in two parts: (i) alphabetical order of authors, with abstracts of some of the papers; and (ii) arrangement under 18 broad subject headings of references only.

CASUALTY AND ACCIDENT

See also Abstract No. 395

431. WILSON, D. H. **Every emergency department should have one—an interview room.** *British Medical Journal*, London, 1976, Jan. 10, vol. i, pp. 87-88.

The accident and emergency department is on the boundary between the hospital and the outside world, and has been the focal point for many social catastrophes. A room, set aside as an interview room, was included in the accident and emergency department of the General Infirmary, Leeds. Originally it was used as a place for passing on catastrophic news, but it has a further use as a room for counselling patients about the circumstances leading up to their visit to the accident department, and helping them readjust to the social environment after treatment.

432. WOLFORD, D. A. **Hospital-based EMS program serves rural county.** *Hospitals*, Chicago, 1975, Nov. 1, vol. 49, no. 21, pp. 51-52, 54, 56.

The planning and implementation of a hospital-based emergency medical service (EMS) in Noble County, Ind., is described. The county is mainly rural with a population of about 31,400, it covers about 410 sq. miles and has three main towns. A 72-bed city-county hospital, McCray Memorial Hospital, is situated in Kendallville, the largest town. A plan for an ambulance service based on McCray Memorial Hospital was worked out and approved by the Indiana State Board of Health. The EMS has six ambulances and an invalid coach for non-emergency transport. Two ambulances and a coach are based at Kendallville and the other four ambulances at four other towns. Special telephone dialling arrangements have been made to obtain ambulances quickly and there is a radio communication system, with special codes for transmitting patient information. Specially trained switchboard operators determine which ambulance is nearest to an emergency and arrange its despatch. Full 24-hour coverage is provided and a house near the hospital provides sleeping quarters, baths, etc., for the full-time emergency medical technicians (EMTs). A back-up on-call staff supplements the full-time staff. Accounting and records are simplified because the service, being hospital-based, can use the hospital services at a minimal cost. Time studies have indicated that hospital staff spend about 10 per cent of their time on EMS business whereas the EMTs spend 25 per cent or more of their time in the hospital emergency department. Fixed costs—salaries, housing costs and depreciation—are kept to a minimum.

CHEST

See also Abstract No. 340

433. BURTON, G. G. **Respiratory care warrants studies for cost-effectiveness.** *Hospitals*, Chicago, 1975, Nov. 16, vol. 49, no. 22, pp. 61, 64-65, 71.

Because respiratory care services (RCS) are consuming an increasing percentage of hospital budgets an analysis was made of 11,542 consecutive admissions at Loma Linda University Medical Center between July 1973 and February 1974. Thirty per cent of patients received diagnostic or therapeutic RCS. The hospital charges of 200 consecutive patients requiring RCS in 1972-73 were also analysed. For patients with acute or chronic pulmonary disease, RCS accounted for 29 per cent of their bills. Costs for consumable and non-consumable equipment have not risen out of proportion to general costs but staff salaries represent two-thirds of the respiratory care budget. There is a tendency towards employing more highly trained staff than are really necessary and this is an area where economies could be made. Procedures have been introduced at the Medical Center to prevent over-use of expensive therapeutic methods. A survey of 80 patients who remained in a respiratory care programme for at least 18 months indicated that there was no significant improvement in pulmonary function in the group as a whole. Nevertheless intensive rehabilitative care may improve several worthwhile parameters and may reduce hospital stay and therefore costs.

CHILDREN

See also Abstract Nos. 318, 386

434. LEAHEY, M. D. and others. **Pediatric diabetes: a new teaching approach.** *Canadian Nurse*, Ottawa, 1975, Oct., vol. 71, no. 10, pp. 18-20.

A children's diabetic class was developed in the Ambulatory Care Centre, University of Calgary. Each lesson incorporates some tool with which the child can play, allowing him to become an active participant in the learning process. The scheme is aimed at six- to 12-year old children, and covers the basic concepts and skills that must be understood in order to cope with diabetes in five lessons. The lessons deal with the pathophysiology of diabetes; the administration and storage of insulin; urine testing; the relationship of food, exercise and insulin to blood glucose levels; and insulin reactions and ketoacidosis. The advantages of the scheme are: (i) it may be used to teach a newly-diagnosed child, or provide a review for children who have had the disease for some time; (ii) the scheme may be used for teaching individuals and small groups of diabetic children; (iii) the set of teaching materials is portable and adaptable for use in a variety of situations; and (iv) the lessons may be taught one at a time or combined, depending upon the intellectual ability of the child, his attention span and the time available to the teacher.

435. LEE, D. H. **Children in hospital schools.** *Special Education: Forward Trends*, Southwell, 1975, Dec., vol. 2, no. 4, pp. 25-27.

This paper discusses the needs of children in hospital and the ways in which they can be met in part by the hospital school and its teachers. The teacher is different from

the other staff, in that she wears no uniform and is very like the teachers at his own school. She also provides opportunities for the child to express himself. The school provides a routine which is quite different from the one in which the child is swept along and helps to restore the child's sense of perspective and emotional balance. The activities offered help to distract the child's attention from his worries and to keep him happily and usefully occupied as he recuperates.

436. CAIN, A. R. R. and others. **Consultant paediatric clinics in group practice.** *British Medical Journal*, London, 1976, Jan. 3, vol. i, pp. 33-35.

This paper describes the effects of establishing a paediatric clinic in a central urban group practice of eight general practitioners serving a population of 17,500. The first phase of the project involved the recording of data on the management of all children referred from the practice to hospital out-patient departments during one year. The second phase consisted of a year when paediatric clinics were held in the practice about once a fortnight. The results are presented under the headings: investigations; pattern of management; quality of referral; educational content; patients' reactions; and logistics. Advantages include greater patient satisfaction, improved communication, mutual education and closer professional relationships. Introduction of such clinics on a wider scale would probably lead to greater practitioner concern in the after-care of children referred to a paediatrician, which would reduce waiting times for those who do require hospital investigation or treatment.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 306, 319, 450

437. BROCKLEHURST, J. C., editor. **Geriatric care in advanced societies.** Lancaster, MTP, 1975, [iv], 160pp. £6.50

Following an introduction on the development of geriatric care, this volume contains papers on services for elderly patients in Great Britain, the Netherlands, United States of America, Sweden, Soviet Union and Australia. In a final chapter, the editor draws a number of conclusions.

438. FÜSGEN, I. Der alte Chronischkranke in der stationären Behandlung—ein Problem unserer Gesellschaft. **[In-patient care of the elderly chronic sick—a community problem.]** *Krankenhaus*, Stuttgart, 1975, Oct., vol. 67, no. 10, pp. 369-376.

It is estimated that by the end of the 1970's 15 per cent (about 10 million) of the population of West Germany will be over 65 and the increasing number of elderly chronic sick needing in-patient care is leading to misuse of acute hospital beds. A survey carried out in Nuremberg hospital in 1973 showed that 320 out of 638 patients occupying acute medical beds were chronic or long-stay patients. On the assumption that 80 per cent of such patients are elderly it is estimated that West Germany needs 2.7 beds for the elderly chronic sick per 1,000 inhabitants. In the case of certain special areas, particularly large cities, the figure would probably be somewhat higher. The increasing number of elderly people who live alone (the figure for 1971 is 2,930,000) is the reason for the need for more long-stay beds.

439. TENGVALL, I. Sjukhemmet och utemiljön. **[The nursing home and its outdoor environment.]** (Spri rapport 7/75) Stockholm, Spri, 1975, 40pp.

The purpose of this report is to provide a broader view of the out-door environment of long-stay care facilities. Its objectives are to provide patients with an opportunity of getting outdoors, to encourage the use of the outdoor environment and to use it as a means of contact with the local community. The report is in two parts: (i) discussion of the value and use of the outdoor environment; and (ii) a concrete example in the planning of the nursing home at Tierp. Photographs, plans and other drawings are included. [This abstract has been prepared from an English summary of the report.]

RHEUMATISM

440. HENKLE, C. **Social group work as a treatment modality for hospitalized people with rheumatoid arthritis.** *Rehabilitation Literature*, Chicago, 1975, Nov., vol. 36, no. 11, pp. 334-341, 354.

The Rheumatic Diseases Unit, Wellesley Hospital, Toronto, is devoted to the treatment of rheumatic diseases, of which rheumatoid arthritis is the most common. Treatment is based on a team concept involving medical staff, auxiliaries and social workers. Weekly group work has become an integral part of the social casework on the unit. The aims are: (i) to provide an opportunity for patients to share their impressions regarding their illness, to find ways of solving their problems and realize that they are not alone; (ii) to discuss methods of maintaining independence using labour-saving devices; and (iii) to provide the social worker with an insight into the difficulties of such a group. The group is open-ended, allowing a free flow of patients; there are usually 25 patients in the 40-bed ward who suffer from rheumatoid arthritis at any one time. The group provides a support for patients and gives the social worker more insight into the state of the arthritic patient.

SURGERY

See also Abstract No. 425

441. OGG, T. W. **Assessment of preoperative cases.** *British Medical Journal*, London, 1976, Jan. 10, vol. i, pp. 82-83.

A pre-operative assessment form was completed by 200 out-patients at Aberdeen Royal Infirmary to help anaesthetists in their pre-operative evaluation of out-patients. Only two per cent of patients needed help in completing the form and inaccurate information was obtained in three per cent of cases. The form was in three parts: (i) instructions concerning food, fluids, and driving; (ii) a questionnaire to assess the out-patient's medical history; and (iii) a consent form to be signed by the patient and witnessed by the medical staff. There is a need for adequate pre-operative assessment for all out-patients attending hospital for surgery, and this problem is highlighted by the questionnaire, for of the 200 patients 45.5 per cent had significant medical histories. The form was thought to be invaluable for day-case anaesthetists and surgeons.

MATERNITY

See also Abstract Nos. 320, 453

442. MATTHEWS, A. E. B., SHEARMAN, W. H. and STEFFENS, E. M. **The West Middlesex Hospital community obstetric project.** *Health Trends*, London, 1975, Nov., vol. 7, no. 4, pp. 69-71.

This paper describes the project which is currently being developed by the West Middlesex Hospital in response to changing policies in obstetrics. Pilot studies began in 1971 to help integrate domiciliary midwives into hospital practice to detect as early as possible developmental errors in children and their relation to genetic, obstetric and environmental factors. These studies provided useful guidelines for planners of the community obstetric project, who subsequently called a meeting of all interested health workers, including general practitioners and medical officers of health. The objectives of the proposed scheme were: (i) integration of general practitioner obstetricians and midwives with the hospital's obstetric department; (ii) decentralization of antenatal and postnatal care, and later other services, e.g., family planning and abortion counselling; (iii) 100 per cent hospital confinement; (iv) paediatric follow-up in the community; and (v) maintenance of obstetric and paediatric standards. Through the committee structure, which is illustrated diagrammatically, general practitioners and midwives are integrated into the system, which has involved the design of a new-style obstetric unit including 'bedroom style' labour wards, and the development of a trend towards planned deliveries. The full involvement of general practitioners in their own patients' welfare will, it is hoped, maintain good obstetric and paediatric standards whilst the programme of very early return home after delivery is developed.

443. COX, C. A. and others. **Critical appraisal of domiciliary obstetric and neonatal practice.** *British Medical Journal*, London, 1976, Jan. 10, vol. i, pp. 84-86.

Obstetric and neonatal data on 155 domiciliary deliveries in the West Middlesex area were analysed, to compare methods for early detection of delayed and aberrant development. The findings illustrated the problems in adhering to generally recognized risk criteria for selecting cases for domiciliary confinement and the unpredictability of events in the newborn period. Awareness of the risks of home confinement have led to increased efforts to make hospital confinement more acceptable to mothers to achieve 100 per cent hospital births. Impersonal labour wards and inflexible hospital routines have been altered, and the midwife who has attended the mothers throughout the antenatal period brings them in. If all is well they are transferred home with their midwife as soon as six hours afterwards. An aspect of early transfer schemes is that the consultant paediatrician no longer supervises the neonates' first week of life.

PSYCHIATRY

See also Abstract Nos. 321, 322, 356

444. CHRISTIE, L. S. **Conflicting needs and concepts in psychiatric hospitals.** *Nursing Times*, London, 1975, Dec. 18, vol. 71, no. 51, pp. 2036-2037.

Since psychiatric hospitals now have to provide an appropriate 'setting' for patients there are increased pressures on the staff to maintain the standard of furnishings,

decoration and facilities. The stresses of patient distribution and management in the face of patient behaviour patterns and institutional patterns result in conflicting needs. A review of staff skills and time, together with an assessment of staff meetings, is necessary. The use of 'non-medical' equipment in psychiatric hospitals has to be re-evaluated so that it is no longer considered a luxury. In conclusion the health authorities will have to consider the needs of psychiatric patients more closely.

445. EDWARDS, A. H. **Mental health services. 4th edition.** London, Shaw, 1975, xxxvi, 572pp. £10.50

This book presents the legislation relating to mental illness and mental handicap in Great Britain in the context of the patient, his family and the community within the setting of the reformed, and as yet barely tested, health and social services. It attempts an emphasis and style which, whilst reflecting the new pattern of services, at the same time allows the Mental Health Act to be seen as a positive instrument within the mental health services to be used for the protection of the patient's liberty, his treatment, his property and affairs. There are chapters on: historical review of mental disorder; the National Health Service; the local social services authority; the mental welfare officer; the patient; hospital treatment and guardianship; removal of patients; patients' property and affairs; criminal proceedings; and mental health review tribunals. Appendices include: summary of procedural requirements; statutes; statutory instruments; and departmental circulars and memoranda.

446. BOERMAN, A. J. Karsuddens sjukhus—ett ofullbordat experiment i särskild vård. **[Karsudden Hospital—an incomplete experiment in special care.]** *Läkartidningen*, Stockholm, 1975, vol. 75, no. 41, pp. 3931-3939.

In 1959 the Swedish Parliament approved the setting up of an experimental special hospital for some 250 young, rehabilitable, male psychopaths in Katrineholm; it was opened in 1964. Several points in the act were left undefined; as a result of half-hearted Government support, the hospital has therefore been run for 10 years on vague guidelines, giving an ill-defined group of patients (mostly chronic alcoholics) as good a treatment as possible within the limited resources available, but carrying out no follow-up assessment of its therapy. In principle there are four blocks (A-D), each of three floors (Gothenburg unit, Stockholm unit and Malmö unit), although money has subsequently never been voted for the full system. A patient is admitted to D block for team assessment, transferred to the corresponding C ward when a treatment plan has been prepared, and finally transferred to a B ward when he can be trusted out of doors for an hour a day. Metal and carpentry workshops offer industrial and furnishing trade training. A block is intended as a semi-open pre-discharge facility. The success rate is assessed at 30 to 40 per cent on the basis of questionnaires sent to former patients. The hospital needs more doctors, better trained staff and more money if the experiment is not to be scrapped in its present unfinished state. The paper is illustrated with one exterior and nine interior photographs.

447. KOGAN, W. S. and others. **Impact of integration of mental health service and comprehensive medical care.** *Medical Care*, Philadelphia, 1975, Nov., vol. 13, no. 11, pp. 934-942.

The effects of the introduction of mental health services into a comprehensive prepaid medical care system were studied at the Group Health Co-operative, Puget

Sound, Seattle. Two independent sub-samples of all people who used the mental health service for the first time were compared with two groups not seen in the mental health service. Information was obtained from medical records of all medical visits from 1962 to 1969 and mental health visits from 1967 to 1969, and was tabulated at quarterly intervals, based on relative rather than calendar time. There was not enough support for the belief that mental health services provide savings in medical care. An analysis of the effect of the mental health services upon the medical services revealed a distinct time relationship between an increase in medical use and referral to mental health services.

448. ALDERSON, M. and RUSHTON, L. **Long-stay mental patients and future planning.** *Health and Social Service Journal*, London, 1975, Dec. 13, vol. 85, no. 4469, pp. 2748-2749.

Limited data has been collected on each patient admitted to and discharged from psychiatric units in Wessex since January 1967 to 1970. This has been compared with earlier projections of the attrition of long-stay psychiatric patients in England and Wales for 1955-59 and in Scotland for 1963. The Wessex analysis reveals a faster attrition than earlier studies, but the reasons are unclear. A more detailed analysis of the Wessex data for 1971-75 is being prepared. Figures of the projections of the data are included.

449. FITZMAURICE, M. **Playleadership in subnormality hospitals: some suggestions towards the development of play provision.** (Play for the Handicapped No. 1) London, National Playing Fields Association, 1975, 20pp. £0.25

This booklet provides advice on the provision of play in hospitals for the mentally handicapped. It covers: playleadership; problems of the hospital environment; play provision—activities; other organizations, other types of play; play provision—staffing; and play provision—policy.

450. LEOPOLDT, H. and ROBINSON, J. R. **Hospital-based community psychiatric nursing in psychogeriatric care.** *Nursing Mirror*, Sutton, Surrey, 1975, Dec., 18, vol. 141, no. 25, pp. 54-56.

This is a 12-month progress report on the work of a clinical nursing officer appointed on 1 August 1974 to the community psychiatric nursing service of the Isis Group of hospitals. In broad terms, his brief was to link more closely together the psychiatric and community services for the elderly and become a working member of both. The report covers: approach and background; introductory communications; work and caseload (referrals and visits); and main areas of work (assessment, domiciliary nursing care, multidisciplinary collaboration and education and training).

451. KECMANOVIC, D. **Patients discharged against medical advice from a lock-and-key psychiatric institution.** *International Journal of Social Psychiatry*, London, 1975, vol. 21, no. 4, pp. 274-279.

A study was carried out to explore: (i) the socio-demographic and diagnostic characteristics of patients discharged against medical advice; (ii) the factors contributing to their discharges, and their motives; and (iii) the adjustment level of the patients. It

involved 64 patients discharged without medical advice and 628 patients discharged with medical advice who left the psychiatric department, Kosevo Hospital, Sarajevo, Yugoslavia, in 1970. Information was obtained from a questionnaire with 22 open-ended questions answered by patients in the control and experimental groups. The results indicated that over half the patients discharged from the department left within the first two weeks. Patients who were discharged against medical advice were younger than those discharged with medical advice, of a higher educational level and had significantly greater tendencies towards personal disturbances. Many of those who left against medical advice found the situation of the closed ward very trying and that it produced an attitude of revolt. No difference was established between the number of readmissions and the adjustment level of patients discharged with medical advice and those discharged against medical advice.

452. LEVY, L. and ROWITZ, L. **The state mental hospital in transition: Illinois state mental hospitals decentralize.** *International Journal of Social Psychiatry*, London, 1975, vol. 21, no. 4, pp. 262-272.

Decentralization in the 13 Illinois state psychiatric hospitals up to 1967 is examined. The hospitals are assessed from the most centralized to the most decentralized, by relating the hospitals to five descriptive model types. Hospital decentralization is a highly complex process and attempts to place hospitals along a decentralization plan are tentative. Hospitals in transition change rapidly. However it is expected that all Illinois state psychiatric hospitals will be decentralized, with the exception of Illinois State Psychiatric Institute, which is a training hospital, and Illinois Security Hospital. All 13 hospitals are described and their sub-hospitals and services outlined.

SOCIAL MEDICINE

See also Abstract Nos. 339, 393

453. CASTADOT, R. G. and others. **The international postpartum family planning program: eight years of experience.** *Reports on Population/Family Planning*, New York, 1975, Nov., no. 18, pp. 1-53.

The International Postpartum Program (IPP) was based on the concept of integrating family planning into the pre-natal, lying-in and postpartum services of hospitals. The concept itself was not original, but its application internationally under various conditions, beliefs and cultural backgrounds was. The project covered 138 institutions in 21 countries; over a period of eight years 1.14 million women were recruited from the maternity wards as acceptors. Acceptance ratios for the project were higher than ratios for national schemes where the target population is more dispersed, and only direct costs for the services needed to be considered. The idea of uniting family planning with the maternity services of hospitals has been expanded by various governments including India, Pakistan, Indonesia, Columbia, Thailand and the Phillippines. The expansion of postpartum services is continuing, as substantial areas of the urban population in developing countries have yet to be reached. Adaptations of maternity-centred family planning schemes are now being tested in rural areas.

454. FOLLIS, P. **Recognizing non-accidental injury in children.** *Nursing Times*, London, 1975, Dec. 18, vol. 71, no. 51, pp. 2034-2035.

A system for recognizing cases of battered children has been developed in Preston, Lancashire, in which all cases of non-accidental injury to children—either suspected or proved—are seen by one doctor in the Royal Infirmary. The small number of people dealing with the cases have become highly experienced and skilled over the years; nurses, through photographs and films, have been trained to recognize the cases, although the weakest link in the chain is the junior hospital doctor. No unilateral action is ever taken except where it is decided to admit a child because it needs protection. The department treats 32,000 new patients each year, and it is believed that between 3,000 to 5,000 are cases of maltreatment. There is a close liaison between the social services and the hospital in dealing with such cases.

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